Rider's Manual

K 1200 LT

BMW Motorrad
On-board
documentation

consisting of
Rider's Manual
and Maintenance
Instructions

Please note

Warning:
This symbol stands for precautions and measures which are essential in order to protect the rider or other persons from possibly severe or fatal injury.

Attention:
Instructions and precautions specifically intended to prevent damage to the motorcycle. Disregarding them may render the warranty invalid.

Note:
Specific instructions on how to operate, control, adjust or look after items of equipment on the motorcycle.

Details described or illustrated in this booklet may differ from the motor-cycle's actual specification as purchased, the accessories fitted or the national-market specification. Please note that no claims will be entertained on the basis of such discrepancies.
Dimensions, weights, fuel consumption and performance data are quoted to the customary tolerances.

The right to modify designs, equipment and accessories is reserved. Printing and other errors and omissions excepted.

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The Ultimate
Driving Machine

Welcome to BMW

We are delighted that you have chosen a new BMW K 1200 LT and would like to welcome you to the community of BMW riders.
Familiarise yourself with your new motorcycle, so that you can ride it safely and confidently in all traffic situations.
To make sure of this, please read this Rider's Manual carefully before starting to use your new motorcycle. It contains important information on how to operate the controls and how to make the best possible use of all the motorcycle's technical features.
In addition, it contains useful hints and information on the correct equipment for machine and rider, to ensure maximum reliability and safety, and advice on how to maintain the value of your motorcycle.
If you have any questions concerning your motorcycle, your authorised BMW motorcycle dealer will gladly provide advice and assistance.
We hope you enjoy reading this Rider's Manual and wish you many a pleasant, safe journey on your BMW motorcycle.

Best wishes,

BMW Motorrad

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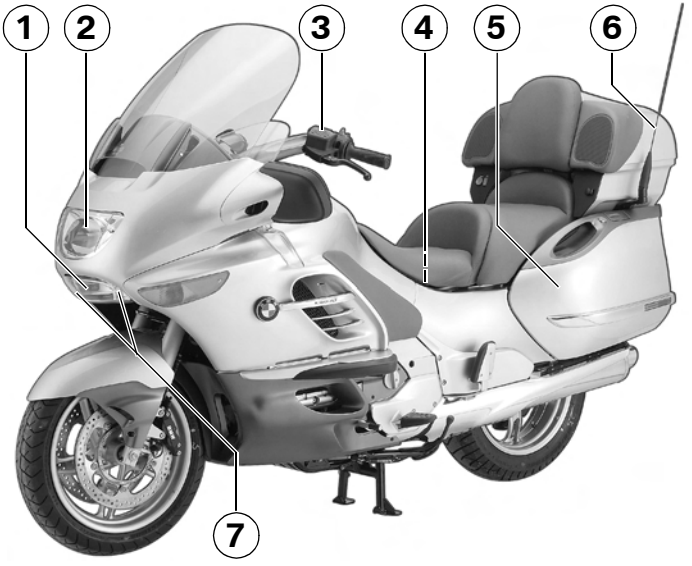
General view, left side



1 High-beam headlight (➠ Maintenance Instructions, Chapter 2)
2 Low-beam headlight (➠ Maintenance Instructions, Chapter 2)
3 Reservoir for clutch hydraulic fluid (➠ 54)
4 Adjusting knob for spring preload, rear suspension (➠ 56)

5 Case, left (➠ 32)
- Seat opener (➠ 34)
- Toolkit
- Repair kit for tubeless tyres (➠ Maintenance Instructions, Chapter 2)
- Steel cable for helmet holder (➠ 40)

6 Aerial (➠ Maintenance Instructions, Chapter 2)
7 Parking light (➠ Maintenance Instructions, Chapter 2)

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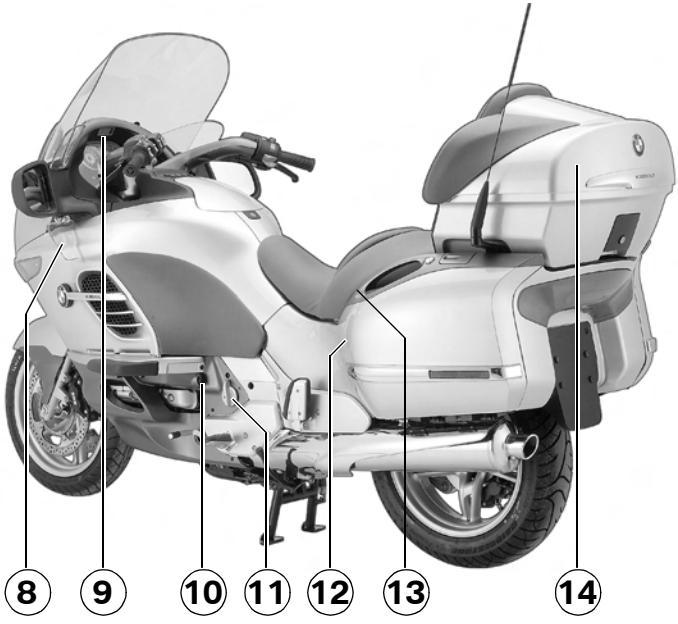
General view, left side



8 Fin, manually adjustable (➠ 17)
9 Cockpit lighting
10 Socket, 12 V for connecting electrical accessories – max. load 5 A, 60 W
11 Shift lever for reverser (➠ 18-20)
12 Coolant reservoir (➠ 55)
13 Helmet holder (➠ 40)
14 Topcase (➠ 33) with
– Interior lighting
– Mirror and
– Stowage compartment for: on-board documentation and oil funnel

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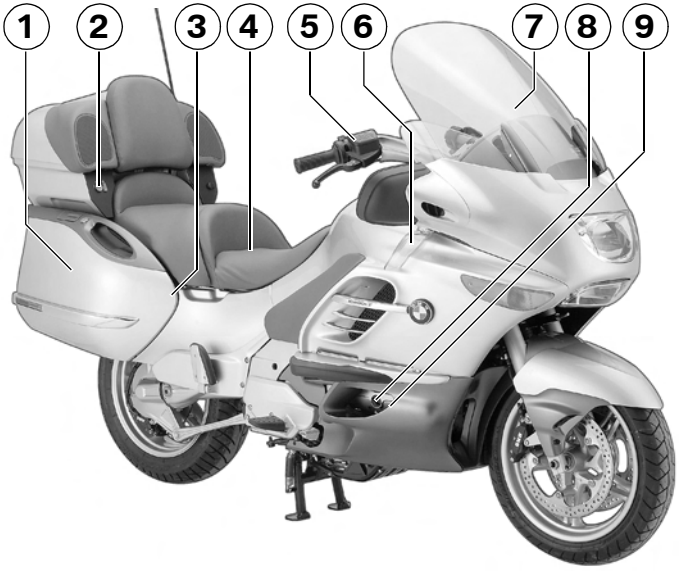
General view, right side



1 Case, right (➠ 32) with
– CD changer[OE] (➠ Supplementary Rider's Manual)
2 Controls for audio system for passenger[OE] (➠ Supplementary Rider's Manual)
3 Brake-fluid reservoir, rear brakes (➠ 52)
4 Fuse box (➠ Maintenance Instructions, Chapter 2)
5 Brake-fluid reservoir, front brakes (➠ 52)
6 Fin, manually adjustable (➠ 17)
7 Windscreen, electrically adjustable
8 Engine oil filler neck (➠ 43)
9 Oil level sight glass, engine (➠ 43)

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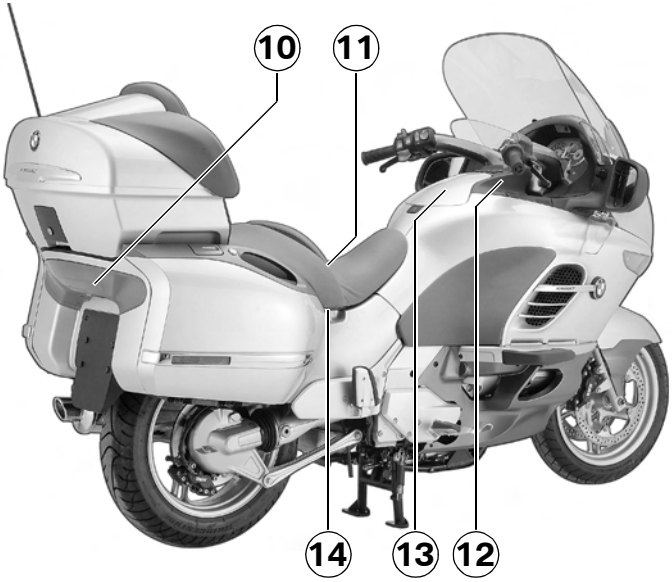
OE Optional extra

General view, right side



10 Rear-light unit with
- Rear/brake light
- Flashing turn indicators, left/ right
- Number-plate light

11 Type plate with vehicle identification number (VIN)

12 Fuel filler cap (➠ 44)

13 Stowage compartment with
- CD player
- Torch

14 Rocker switch for front and rear seat heating OE (➠ 39)

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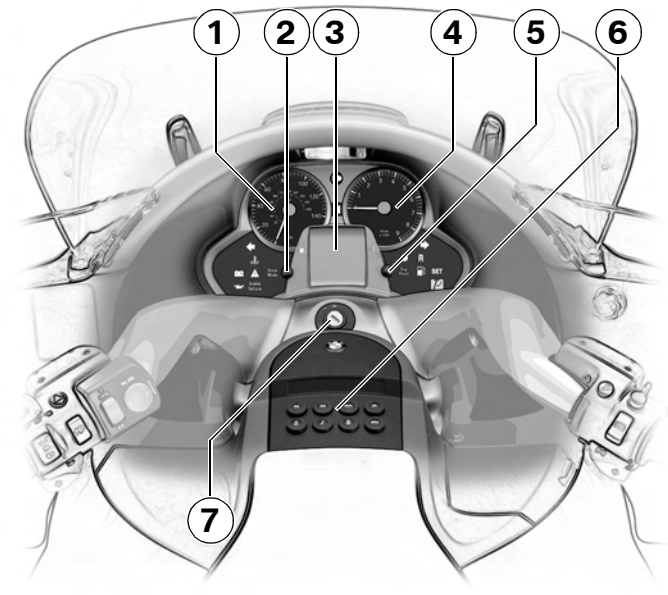
OE Optional extra



1 Speedometer
2 Pushbutton for setting clock
3 Multifunction display with
- On-board computer (➠ 28)
- Fuel gauge with indicator for reserve (➠ 45)
- Coolant temperature gauge (➠ 55)
- Odometer
- Trip meter
- Clock
- Gear indicator
- Radio display

4 Revolution counter (➠ 73)
5 Trip meter reset button
6 Radio controls (➠ Supplementary Rider's Manual)
7 Ignition switch and steering lock (➠ 13)

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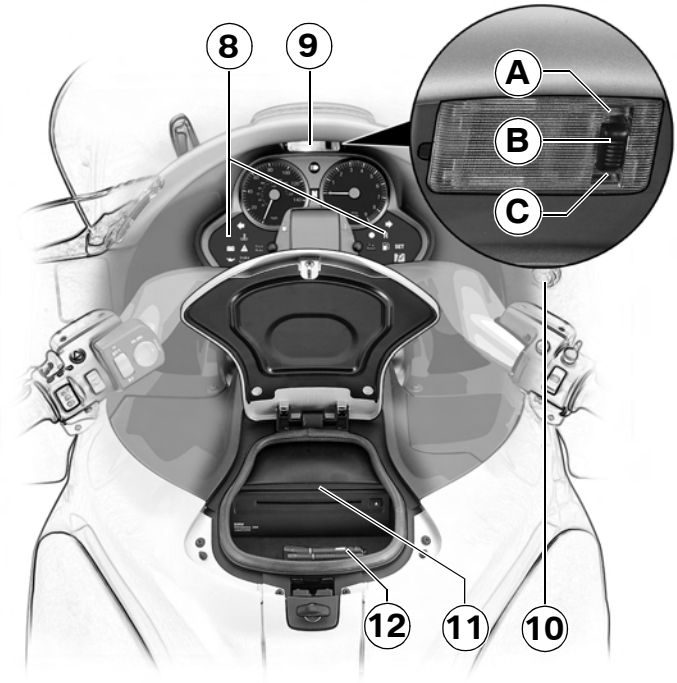

8 Telltale and warning lights (➠ 10, 11)

9 Cockpit lighting
- **A** On
- **B** Off
- **C** Automatic (➠ Supplementary Rider's Manual for the anti-theft alarm **DWA**[OE])

10 Knob for headlight beam throw adjustment (➠ 62)

11 Radio/CD player with stowage compartment

12 Torch

OE Optional extra

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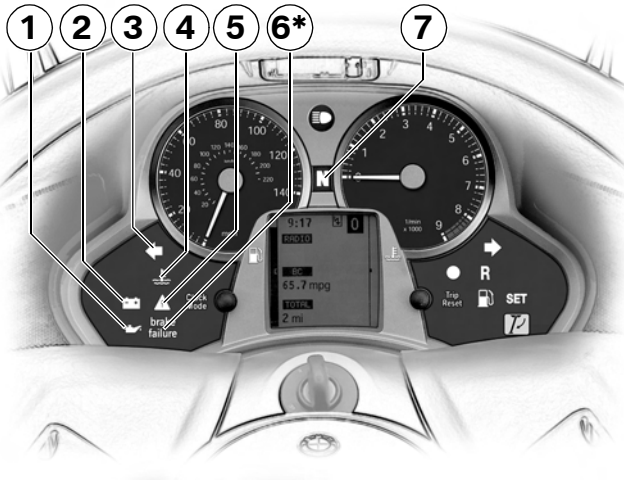
Telltale and warning lights



Note:
A sensor controls automatic daytime/night-time switchover. The LCD is illuminated at night.

1 Warning light, engine oil pressure, **red** (➠ 42, 78)
2 Warning light, battery charge current, **red** (➠ 79)
3 Left turn indicator repeater **green**
4 Warning light, coolant temperature, **red** (➠ 55, 79)
5 Warning light, general **red** ⚠ (➠ 78)
6 Warning light, ABS **red** ABS (➠ 78)
7 Telltale light, neutral, **green** N (➠ 76)

* depending on national-market specification

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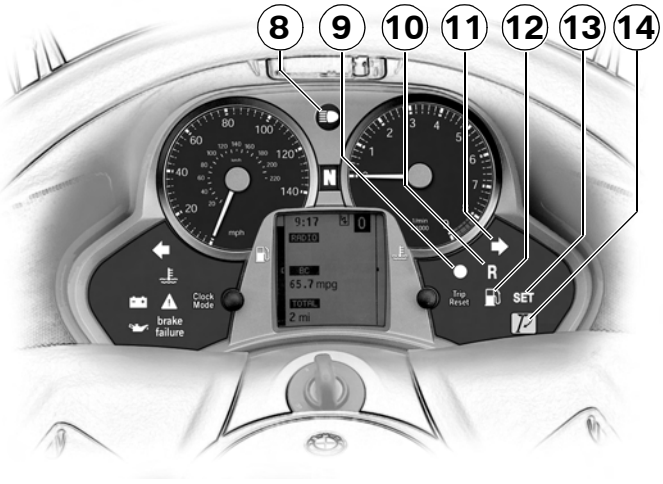


8 Telltale light, high-beam headlight, **blue**

9 Telltale light, anti-theft alarm **DWA**[OE] (➠ Supplementary Rider's Manual for the anti-theft alarm **DWA**)

10 Telltale light, reverser **yellow** R

11 Right turn indicator repeater **green**

12 Warning light, fuel level/when approx. 4 litres (0.9 lmp.gal.) left in tank **yellow** (➠ 45, 78)

13 Telltale light, cruise control[OE] **yellow** SET (➠ 21)

14 Telltale light, electro-hydraulic centre stand **EHCS** (➠ 71)

( ) Number in parentheses
➠ page number for description

OE Optional extra

Ignition switch and steering lock

Keys

You will receive one master key and one spare key.
The key number is on the accompanying tag.

Warning:
Only a RESIDUAL BRAKING FUNCTION is available when the ignition is switched off (➠ 87)

Warning:
Never attach other keys or key rings to the motorcycle key – risk to safety if keys were trapped between the handlebars and the fairing.

Note:
Ignition switch and steering lock, tank filler cap lock, radio-compartment lock and side and topcase locks are all operated with the same key.
Central locking[OE]
(➠ Supplementary Rider's Manual for the **anti-theft alarm**)

[OE] Optional extra

Key positions

ON Operating position, ignition, lights and all circuits switched on, self-test of the instrument cluster is performed (➠ 10)

R * **Ignition and lights off, steering not locked** (handlebars can be turned freely to left or right)

Warning:
Never turn the key to OFF or P while riding the motorcycle

* The key can be removed in these positions

- Turn the handlebars to full left lock.

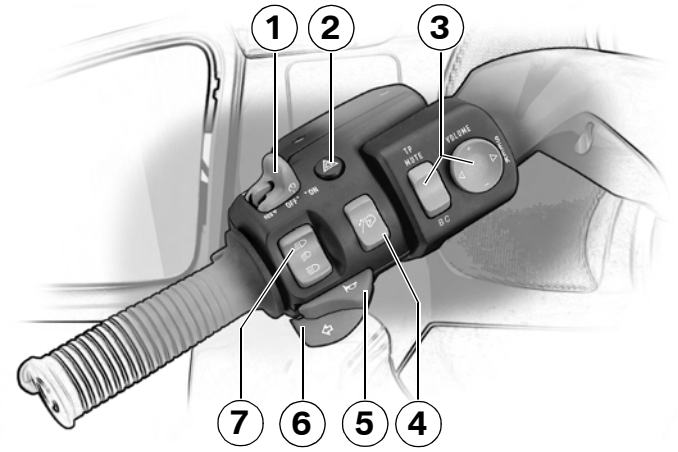
Attention:
Engage the steering lock with the handlebars in this position only.

OFF* Ignition and lights off, steering locked

P * Parking light on, steering locked

Note:
Switch the parking light on for limited periods only.
Note state of battery charge.

Left handlebar fitting



Warning:

To prevent air from entering the hydraulic circuit:

- **do not turn the fitting on the handlebar.**

1 Switch for cruise control[OE] (➠ 21)

2 Hazard warning flasher switch (➠ 16)

3 Handlebar-mounted remote controls for audio system (➠ Supplementary Rider's Manual) and on-board computer

4 Switch for windscreen adjustment (➠ 17)

5 Horn push

6 Left flashing turn indicator switch

- Press

– Turn indicators operate

To switch off turn indicators:

- Self-cancelling while riding, or press turn-indicator cancel switch **13** (➠ 15)

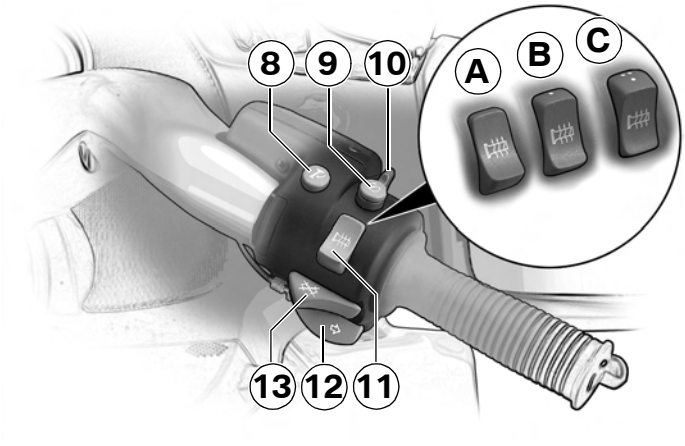
7 High-beam/low-beam headlight switch

High-beam headlight

Low-beam headlight

Headlight flasher

[OE] Optional extra



Warning:
To prevent air from entering the brake system:
- **do not turn the fitting on the handlebar.**

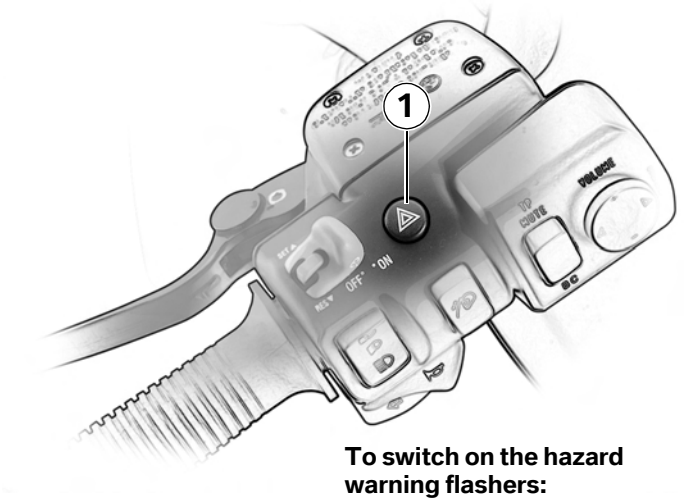
8 Pushbutton for electro-hydraulic centre stand **EHCS** (➠ 70)
9 Starter button (➠ 18, 77)
10 Emergency off (kill) switch for ignition (➠ 75)
11 Switch for heated handlebar grips OE
- **A** Heating function off
- **B** 50% (centre position)
- **C** 100%

12 Right flashing turn indicator switch
- Press
– Turn indicators operate

To switch off turn indicators:
- Self-cancelling while riding, or press turn-indicator cancel switch **13**

13 Turn indicator cancel switch
- Press
– Left/right turn indicators off

OE Optional extra



Hazard warning flashers

Note:
The ignition must be switched on before the hazard warning flashers can be used.
Do not use the hazard warning flashers for longer than absolutely necessary.
Note state of battery charge.

To switch on the hazard warning flashers:

- Switch on the ignition
- Operate hazard warning flasher switch **1**

– Hazard warning flashers in operation
– Telltale light in switch is on

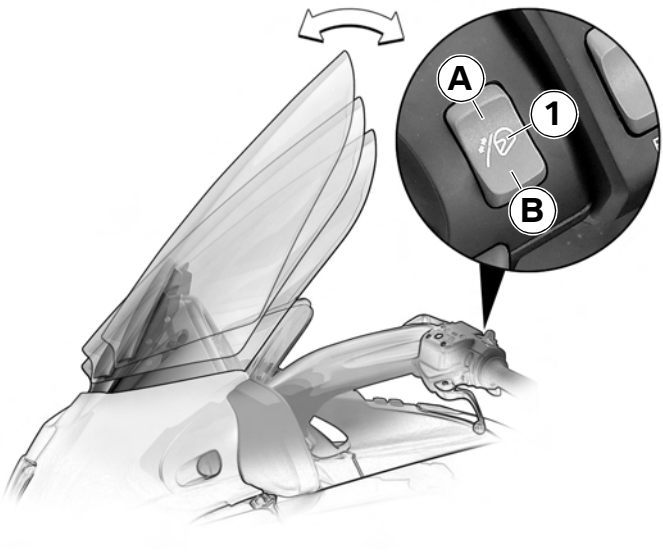
- Switch off the ignition

– The hazard warning flashers continue to operate
– Telltale light in switch goes out

To switch off the hazard warning flashers:

- Operate hazard warning flasher switch **1**

– Hazard warning flashers cease to operate



Adjusting the windscreen:

- Switch on the ignition
- Press switch **1**
  - **A** Raise windscreen
  - **B** Lower windscreen

Steplessly adjust the windscreen by moving the switch to the appropriate position, **A** or **B**

Adjusting left/right fin:

- Move the left and right fins to the desired position

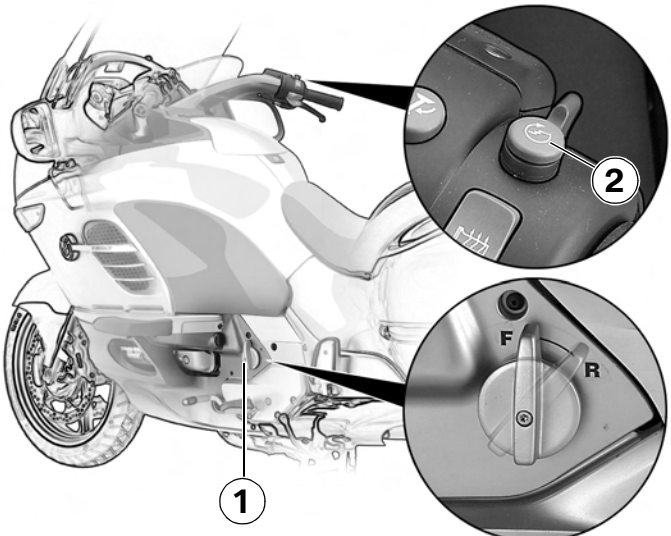
Attention:
The windscreen and fins are not fuel-resistant.

Note:
The fins regulate the pressure of the slipstream against the rider.

Warning:
Avoid steep and uneven road surfaces when reversing. Take great care to maintain your balance when reversing on wet, slippery, uneven, unpaved or muddy surfaces.
Engage the reverser only when the motorcycle is at a standstill and do not press the starter pushbutton while engaging the reverser.
Do not simultaneously press the pushbutton for the electro-hydraulic centre stand.

Warning:
Rules for reversing:
- **No passenger**
- **You must be seated on the motorcycle**
- **Keep both feet on the ground**
- **Keep your feet well clear of the footrests on both sides**
- **Keep both hands on the handlebar grips**
- **Make sure side stand and main stand are both fully retracted (➠ 69, 72)**
- **Check that the area behind the motorcycle is free of obstructions**

Attention:
Do not operate the reverser for more than 1 minute – bear the state of battery charge in mind. The reverser switches off if it is overloaded.



Reversing

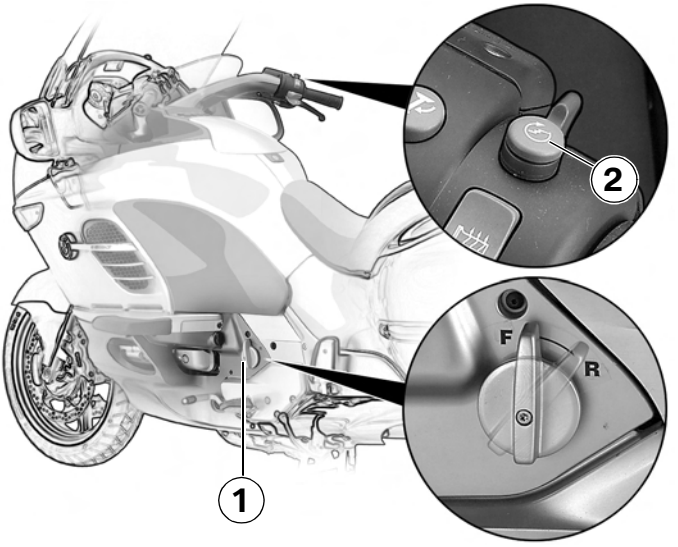
- Start the engine (➠ 76, 77)
- Select neutral
  - **Green** neutral telltale light N ON (➠ 10)
- Push lever **1** of reverser all the way toward position **R** until it engages
  - **Yellow** R reverser telltale light ON (➠ 11)
- Press and hold down starter button **2**
  - Carefully reverse the motorcycle

Note:

If lever **1** does not engage easily in position **R**

– slightly rock the motorcycle backwards and forwards until lever **1** engages.

Reverser



Stopping

- Release starter button **2**
  - The motorcycle comes to a stop
- Apply the brake if necessary

Normal operation

- Push lever **1** of reverser all the way toward position **F** until it engages
- **Yellow** R reverser telltale light OFF (➠ 11)

Warning:

Do not engage cruise control when:

- **Riding on twisty roads with poor forward vision**
- **Heavy traffic does not permit you to maintain a constant road speed**
- **Riding on wet, unpaved or dirty roads**

The motorcycle might exceed your chosen cruise control speed if the engine's braking effect is insufficient on a downhill gradient. It could also drop below this speed when you ride uphill.

For safety reasons, always keep both hands on the handlebars.

Note:

With automatic cruise control, speed can be controlled in the range between 40 and 160 km/h (25 and 100 mph).

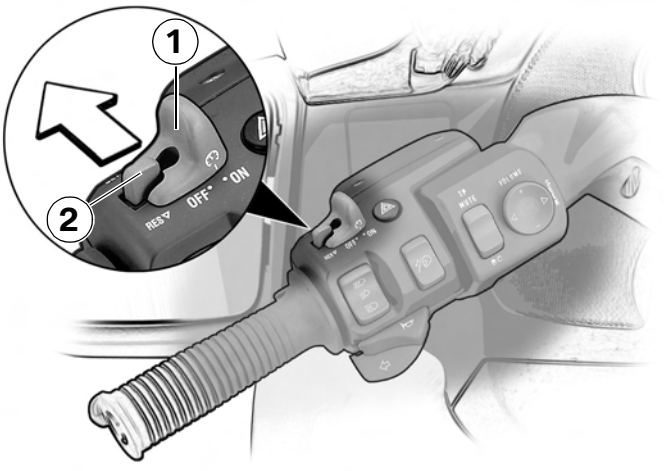
When the motorcycle is at a standstill and – ignition **OFF** – the system is switched off and the stored road speed is cancelled.

The telltale light for cruise control is off.

On a motorcycle fitted with BMW Integral ABS, the cruise-control system is not operational if the brake light is defective (**red** general warning light ⚠ ON ➠ 78).

OE Optional extra

Cruise control[OE]



Activating the system

- Move switch **1** to **ON**

– **Red** telltale light in the switch is ON

Setting road speed

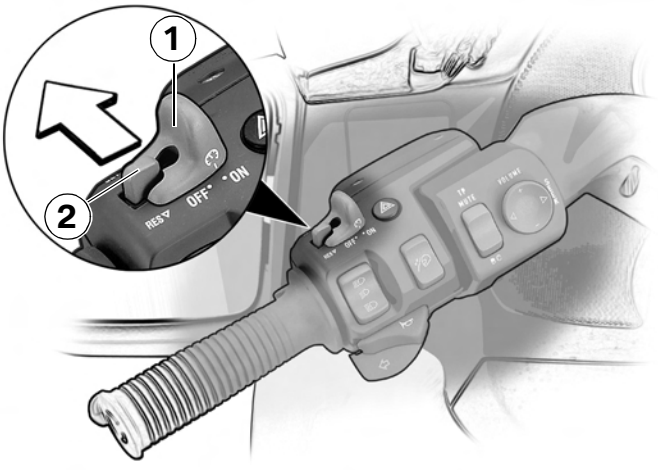
- Briefly press button **2** in **SET** direction (arrow)

– **Yellow** SET telltale light for cruise control is ON (➠ 11)

Note:

The motorcycle maintains and memorises your current cruising speed.

[OE] Optional extra



Step-by-step acceleration

- Press button **2** in **SET** direction
  - Memorised road speed increases by approx. 2 km/h (1 mph)

Note:

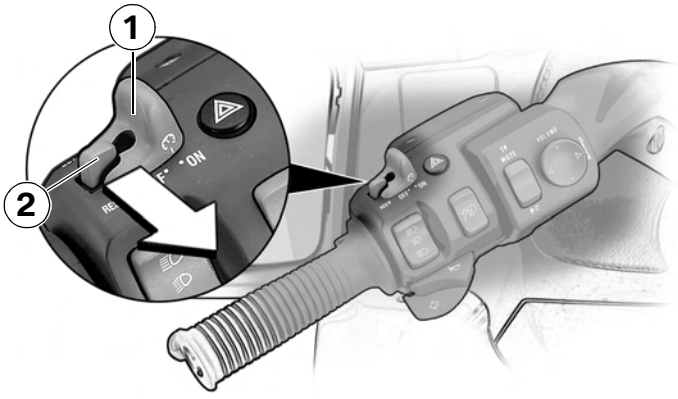
Each time you press button **2** in the **SET** direction, road speed increases by a further 2 km/h (1 mph).

Stepless acceleration

- Press and hold down button **2** in **SET** direction (arrow)
- The motorcycle accelerates steadily, even though you do not manually open the throttle
- Release button **2**
- The motorcycle maintains and memorises your current cruising speed

OE Optional extra

Cruise control[OE]



Decelerating

- Press and hold down button **2** in **RES** direction (arrow)

– The motorcycle decelerates steadily, even though you do not manually close the throttle

Note:

Each time you push the button in the **RES** direction, road speed decreases by a further approx. 2 km/h (1 mph).

Deactivating the system

- Move switch **1** to **OFF**

– The cruise control system switches off immediately
– **Red** telltale light and **yellow** SET telltale light for cruise control (➠ 11) OFF

Temporary override

When you actuate the:

– brakes
– clutch
– throttle twistgrip (close the throttle)

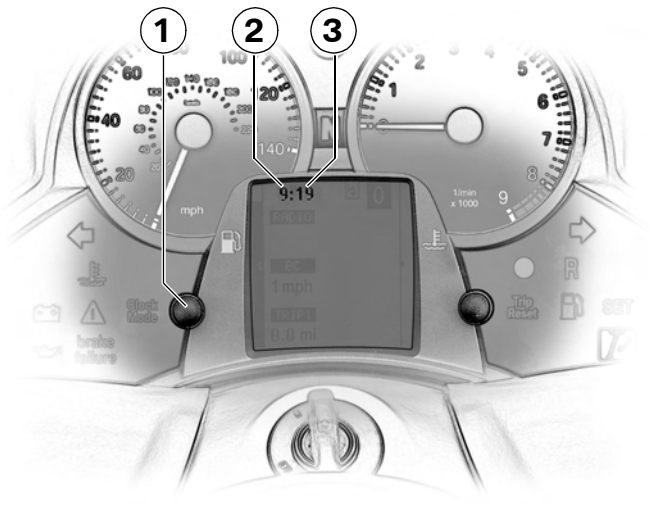
the cruise control system is briefly switched off

– **Yellow** SET telltale light for cruise control (➠ 11) OFF
– **Red** telltale light ON

- Push button **2** in the **RES** direction

– The motorcycle returns to and maintains the cruising speed stored in memory
– Telltale light, cruise control **yellow** SET (➠ 11) ON.

OE Optional extra



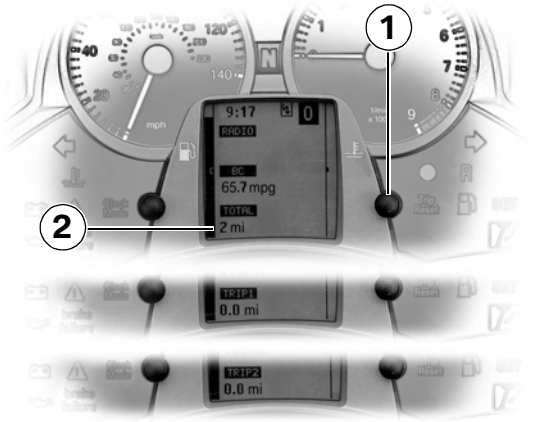
Setting the clock

Warning:
Do not attempt to set the clock unless the motorcycle is at a standstill
– Risk of accident.

- Ignition switch **ON** (➠ 12)
- Press button **1** for longer than 2 seconds, until the clock enters set mode
  – Hours reading **2** starts flashing: briefly press button **1** to set
- Press button **1** again for longer than 2 seconds
  – Minutes reading **3** starts flashing: briefly press button **1** to set
- Press button **1** again for longer than 2 seconds to exit set mode

Set mode is automatically exited if 20 seconds elapse without the button being pressed.

Distance recorder



Note:

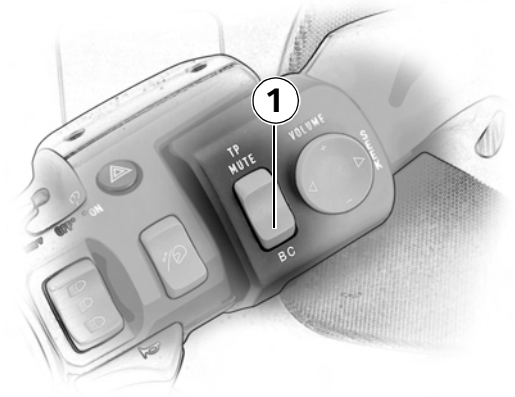
Distance recorder **2** appears only when the ignition switch is in the **ON** position.

Each time you switch on the ignition the odometer reading showing the total distance the motorcycle has covered appears for 10 seconds, before the display switches to the mode selected before the ignition was switched off.

Warning:

Do not attempt to check/set the distance recorder unless the motorcycle is at a standstill – Risk of accident.

- Ignition switch **ON**
- Press button **1** for less than 2 seconds; each time you press the button the display steps to the next reading in the following sequence:
  - Odometer reading (total distance covered)
  - Tripmeter 1 reading
    - Press button **1** for longer than 2 seconds if you want to reset this reading.
  - Tripmeter 2 reading
    - Press button **1** for longer than 2 seconds if you want to reset this reading.



Handlebar-mounted remote controls

Note:

Use rocker switch **1** on the left handlebar fitting to access the menu of the on-board computer.

When you switch on the ignition (ignition switch in the **ON** position), the display initially shows the ambient temperature, before switching to the reading that was displayed before the ignition was switched off.

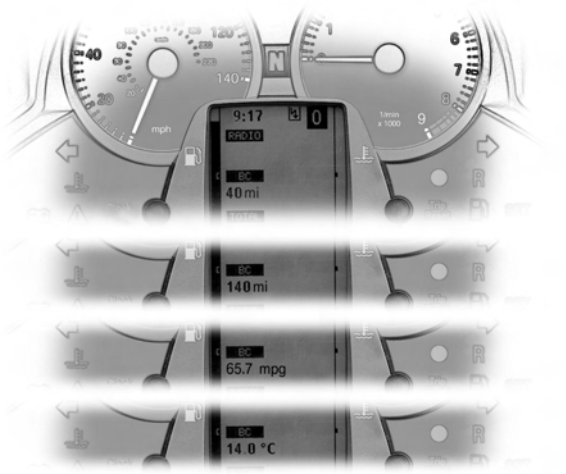
- Each time you push rocker switch **1** on the left handlebar fitting in the **BC** direction for less than 2 seconds, you step from one function to the next in the following sequence:
  - Average road speed (➠ 28)
    - Press button **1** in the **BC** direction for more than 2 seconds to reset
  - Residual range (➠ 28)
  - Average consumption 1 (➠ 29)
  - Average consumption 2 (➠ 29)
    - Press button **1** for more than 2 seconds in the **"BC"** direction to reset average consumption reading 1/2
  - Ambient temperature (➠ 30)

Average road speed

Note:
The reading is in km/h or mph, depending on national-market version.
Stops with the engine switched off are ignored.
Average speed is always calculated over the time since the last "RESET" triggered by means of the handlebar-mounted switch.

Residual range

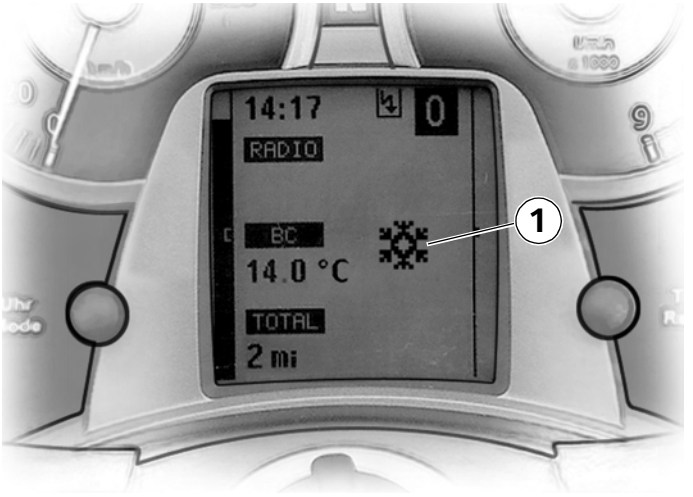
Note:
Reading in km or miles, depending on national-market version.
The range is estimated on the basis of style of riding and taking the remaining supply of fuel into account.
Note that the range cannot be shown accurately if the motorcycle was placed on its side stand. The reading is corrected during the journey.
The display shows residual range in km or miles.
Also observe the reading of the fuel-level gauge and the warning light for reserve fuel level (➠ 10, 11).
The on-board computer registers that you have refuelled when approx. 3 litres (5.3 Imp.pints) have been added.



Average consumption

Note:
Reading in litres/km, litres/mile, or miles/gallon, depending on national-market version.
Average consumption can be computed for two different distances, for example an entire trip or just one leg of a journey.

The average is calculated over the time the engine is running. Stops with the engine switched off are ignored.
Average fuel consumption is always calculated over the time since the last “RESET” triggered by means of the handlebar-mounted switch.



Ambient temperature

Note:
Reading in °C or °F, depending on national-market version.

Ice warning
If ambient temperature drops below +3 °C, the on-board computer automatically switches to temperature-display mode and ice warning symbol **1** flashes on the display.

Warning:
The ice warning does not mean that there is no risk of black ice forming at measured temperatures above 3 °C.
Always take extra care and think well ahead when temperatures are low; remember that the danger of black ice is particularly high on bridges and where the road is in the shade.

Display dimming

Warning:
Do not attempt to adjust the display dimmer unless the motor-cycle is at a standstill – Risk of accident

The brightness of the backlit multi-function display is variable.

- Press button **1**

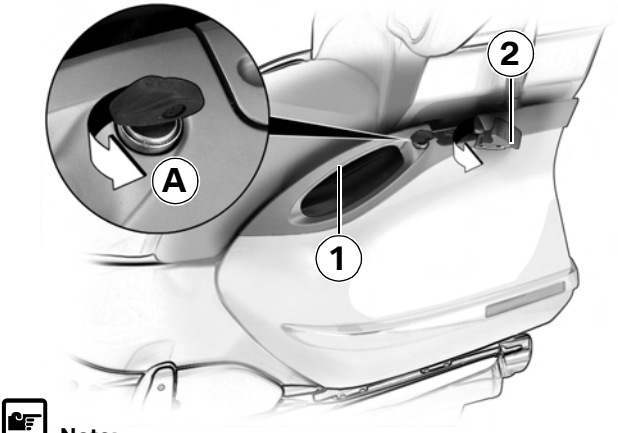
– The level of dimming appears in display field **2**

- Press button **1** again

– The brightness of the display increases one level each time you press the button. Each time you press the button after maximum brightness is reached, brightness is reduced by one level.

Note:
If button **1** is not pressed for longer than 2 seconds, the current brightness is stored as the new setting.

Opening/closing cases



Note:
If your motorcycle is equipped with central locking[OE], see the Supplementary Rider's Manual for the **anti-theft alarm**

- Place the motorcycle on the main (centre) or side stand
  – Make sure the ground is level and firm.

Opening the case

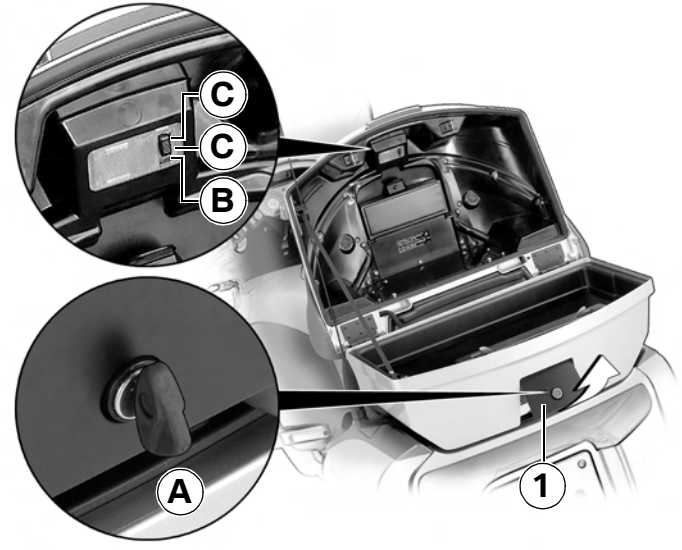
- If necessary, unlock the case
  - Turn key in case lock to position **A**
- Press the locking cylinder
  – Latch **2** snaps open
- Grip handle **1**
- Open latch **2** (arrow)
- Open the case

Closing the case

Attention:
To ensure the case is leak-tight, keep the sealing edges clear when locking.

- Close the lid of the case
- Close latch **2**
- If necessary, lock the case and remove the key

[OE] Optional extra



Opening the topcase

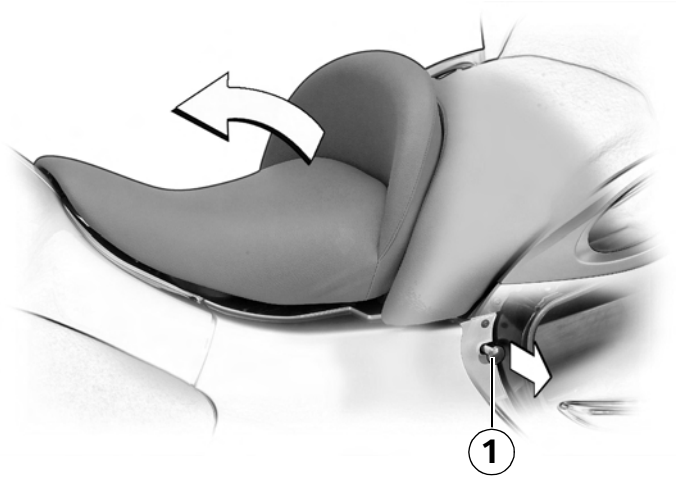
- If necessary, unlock the topcase
  - Turn key in topcase lock to position **A**
- Press down locking cylinder
  – Latch **1** snaps open
- Pull up latch **1** as far as it will go (arrow)
- You can now open the lid of the topcase

– Topcase lighting
B ON
C OFF

Closing the topcase

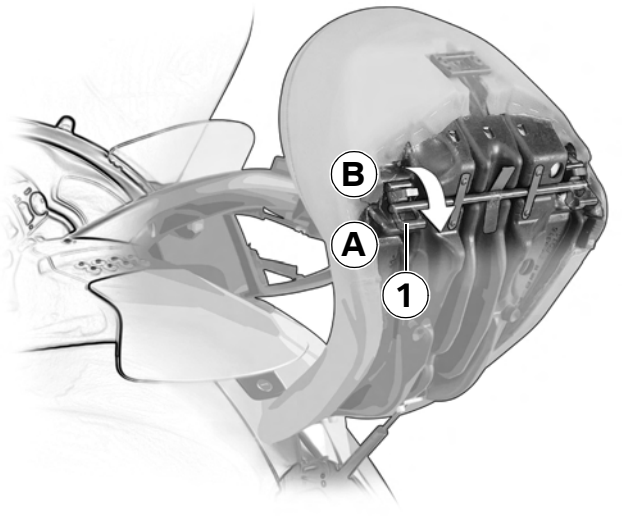
Note:
The interior light goes out automatically when you close the topcase.

- Close topcase lid
- Close latch **1** until it engages
- If necessary, lock the topcase and remove the key



Opening front seat

- Place the motorcycle on the main (centre) or side stand
  - Make sure the ground is level and firm.
- Open the left case (➠ 32)
- Pull out lever **1** (arrow)
- Lift the seat up and forward (arrow)
  - Mount for helmet holder (➠ 40),
  - Knob for spring preload (➠ 56),
  - Battery and fuses (➠ Maintenance Instructions, Chapter 2) are accessible



Adjusting front seat:

- Open the seat (➠ 34)

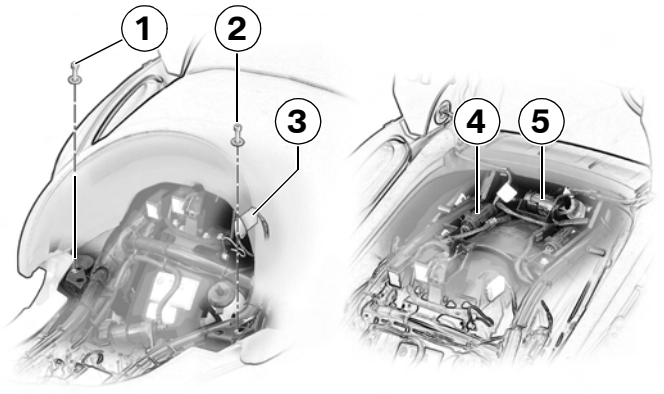
– Mover adjuster **1** to the desired position (arrow)

– The front seat can be set to either of 2 positions:
  – **A** = high
  – **B** = low

Locking front seat

Attention:
When closing the front seat:
– Fold in knob for adjusting spring strut
– Check that the front seat is securely latched

- Swing down the rear of the seat until it engages with an audible click
- Close the left case (➠ 32)

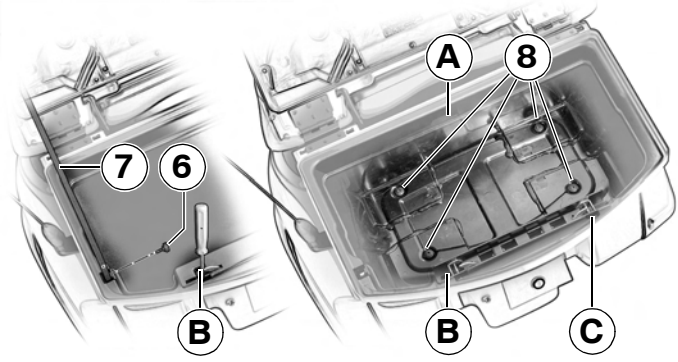


Adjusting the backrest:

Note:
The backrest can be adjusted by one position by moving the top-case.
It is advisable to have this adjustment carried out by your authorised BMW motorcycle dealer.

- Place the motorcycle on its main (centre) stand
  - Make sure the ground is level and firm.
- Open the seat (➠ 34)
- Remove securing screws **1** and **2**
- Raise the rear seat slightly and disconnect plug **3** of the seat heating OE
- Carefully pull the rear seat forward
- Remove plugs **4** and **5** for the loudspeakers from their holders and turn them counter-clockwise to disconnect
- Remove cables of plugs **4** and **5** from their holders

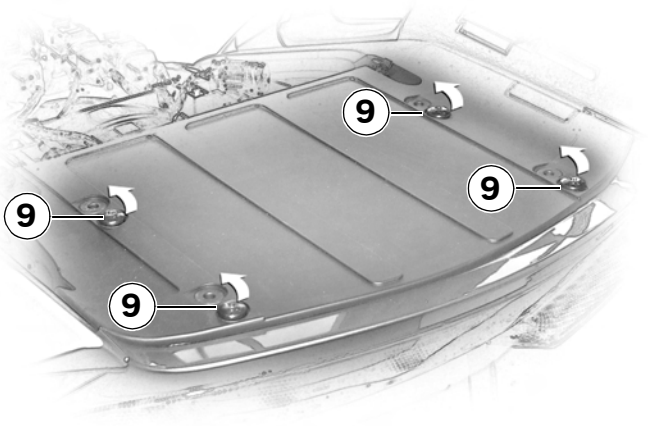
OE Optional extra



- Open the topcase (➠ 33)
- Slacken knurled screw **6**
- Hold topcase cover
- Carefully disengage retaining strap **7**

Attention:
To avoid damaging the topcase lid hinges and the loudspeakers, hold the lid or install suitable supports.

- Disengage inner shell from Velcro fastener at point **A**
- Use small screwdriver to push back retaining clips at points **B** and **C**
- Carefully lift the inner shell out of the topcase
- Remove four securing screws **8** from the topcase
- Carefully remove topcase



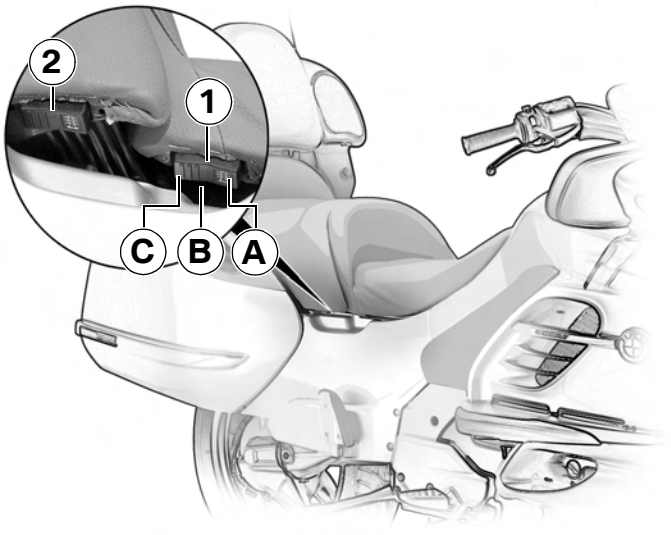
- Move securing screws **9** (short) to the appropriate positions on the retaining plate (arrow)

Attention:
The securing screws of topcase and retaining plate are of different lengths: do not mix them up.

– The backrest can be adjusted by one position.

- Carefully fit the topcase
- Tighten four securing screws **8** (long) in the topcase to the specified tightening torque
- From this point on, installation is the reverse of the removal procedure

Tightening torque:
Securing screws for topcase .....9 Nm
Retaining plate .....9 Nm
Rear seat .....9 Nm

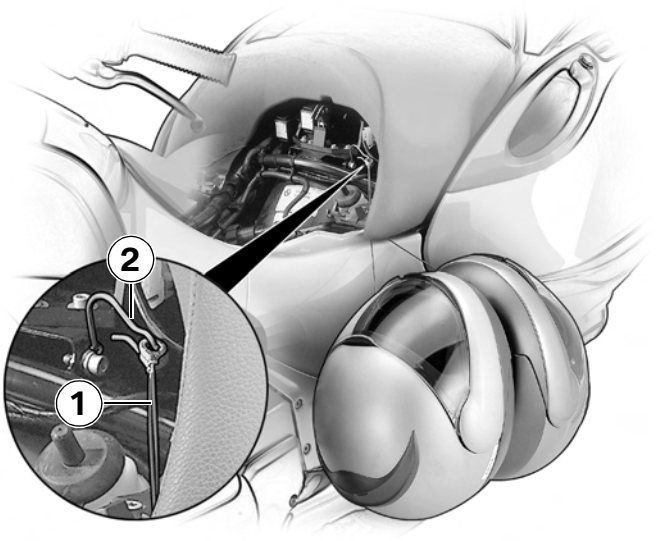


Note:
Use the seat heating only when necessary. The increase in power consumption can drain the battery if you are riding at the low end of the engine-speed range.

- Press switch for front seat heating **1** or rear seat heating **2**
  - **A** Continuous heating
  - **B** Heating function OFF
  - **C** Rapid heating, then move the switch to position **A** or **B**

Note:
The seat heating in the backrest shuts down automatically at 50 °C (122 °F).

Helmet holder



- Open the seat (➠ 34)
- Pass steel cable[OA] **1** through the chinguards of the helmets
- Hook the steel cable[OA] **1** over the holder **2**
- Carefully close and lock the front seat (➠ 34)

Note:
Helmets can also be stored in the topcase (➠ 61).

[OA] Optional accessory

Use the safety checklist – before every journey

Please perform the safety check accurately. If your motorcycle needs any routine maintenance, you can then attend to it before the journey starts (➠ Maintenance Instructions), or have it carried out by a specialist workshop, preferably an authorised BMW motorcycle dealer. This is to ensure that your motorcycle complies with road-vehicle use and safety laws. Your vehicle must be in perfect technical order: this is a basic prerequisite for your safety and the safety of other road users.

For this reason, check the details in the following sections before you start the journey:

- Fuel level
- Positions of the handlebar levers
- Brake fluid level
- Clutch fluid level
- Brakes
- Warning lights and telltale lights
- Spring preload
- Wheel rim and tyre condition, tread depth and tyre pressures
- Load, gross weight
- Lights
- Coolant level

- Check regularly (every time you stop for fuel), on the basis of the following section:
- Engine oil level (every second/third stop for fuel)
- Brake pads

If you encounter any problems or difficulties, it is always best to contact your authorised BMW motorcycle dealer.
He will provide the necessary advice and assistance.

Checking oil level

Check the oil level at regular intervals.

Always check the oil level when the engine is at operating temperature, because the difference between the oil level indicated when the engine is at operating temperature and the oil level indicated when the engine is very cold due to extremely low outdoor temperatures -10 °C (14 °F) can be as much as 10 mm (0.4 in).

After switching off the engine at operating temperature, wait at least 5 minutes for the oil to drain back into the sump.

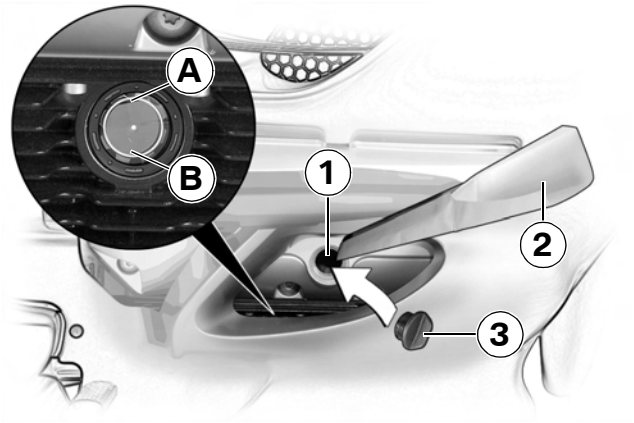
Checking the oil level after the engine has been run only briefly or when it is not properly warm will falsify the reading and could lead to the engine being operated with the wrong quantity of oil, because cold oil is viscous and takes longer to drain back into the sump.

Attention:

To avoid damage to the engine:

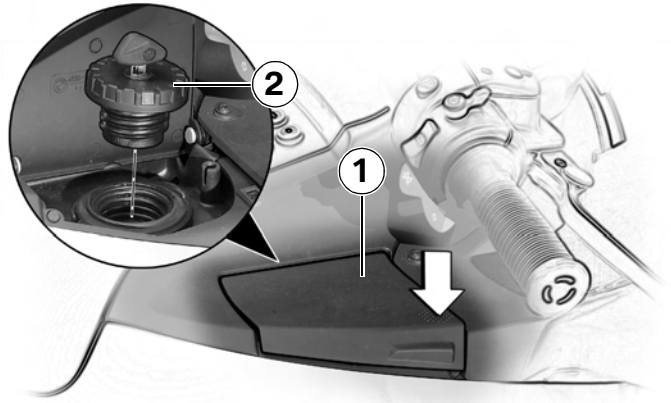
- Never exceed the maximum oil level.
- Always keep the oil level above the minimum mark.

- Check the oil level with the engine at its regular operating temperature
- Check the oil level after the engine has been stopped for at least 5 minutes
- Place the motorcycle on its main (centre) stand
  - Make sure the ground is level and firm.



- Check the oil level at the sight glass:
  A (MAX) Top edge of sight glass
  B (MIN) Bottom edge of sight glass
  – The difference between the two marks is approx. 0.5 litre (0.9 Imp.pint)
- If necessary, remove oil filler plug **3** and top up the engine oil, using funnel **2**, through oil filler neck **1**
- Reinstall oil filler plug **3**

Attention:
The **red** warning light (➠ 11) for engine oil pressure indicates no (or very little) oil pressure in the lube-oil system; this light must not be regarded as an oil level check.
Oil pressure builds up after 1-2 seconds and the warning light goes out – the **red** engine oil pressure warning light should remain off while the engine is running.



Refuelling

Warning:

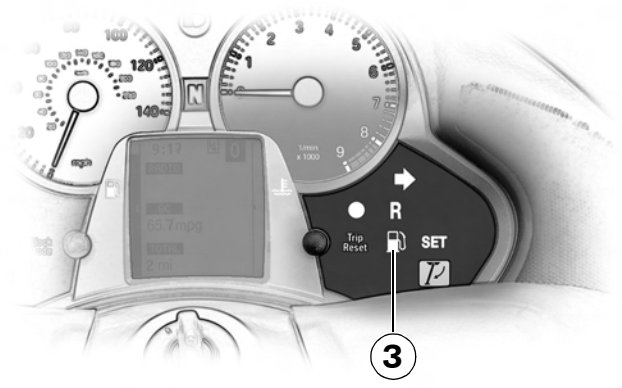
Fuel is flammable and explosive. Do not smoke. Never bring a naked flame near the fuel tank.

The fuel expands when hot (for instance if the fuel tank is in the sun). For this reason, only fill as far as the lower edge of the filler neck.

Attention:

Note that fuel containing lead will destroy the catalytic converter. Do not run the fuel tank dry or you may damage the engine or catalytic converter.

- Place motorcycle on side stand
  – Make sure the ground is level and firm.
- Open fuel-tank flip **1** by briefly pressing down on the ribbed section (arrow)
- To open fuel cap **2**:
  – Unlock the cap, turn it counter-clockwise and remove



- Refuel
– Always use super (premium) unleaded fuel to DIN 51607 or equivalent standard, min. octane number 95 (RON) or 85 (MON)
- To close fuel cap **2**:
  – Place the cap in position, turn it clockwise as far as it will go and lock it

Note:
Hold the tank cap while locking it.

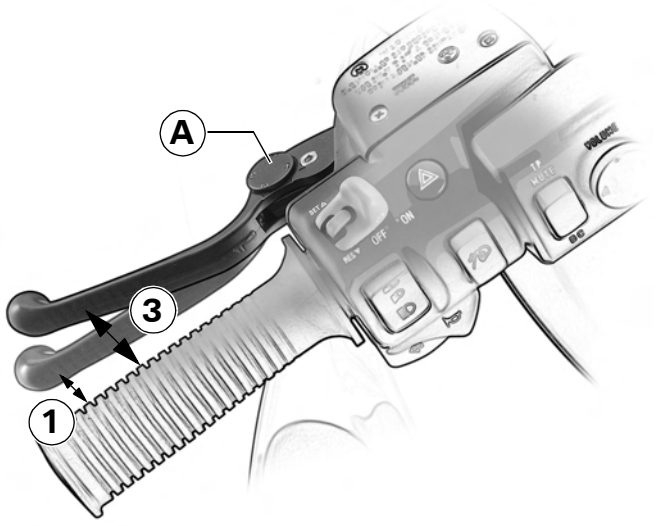
- Push fuel-tank flip **1** down until it engages with an audible click

Capacity

– Total capacity: 24 litres (5.3 Imp.gals.)
– A **yellow** warning light **3** comes on when there are approx. 4 litres (0.9 Imp.pint) of fuel left in the tank

Note:
The warning light and fuel gauge function only when the ignition is on.

Handlebar levers



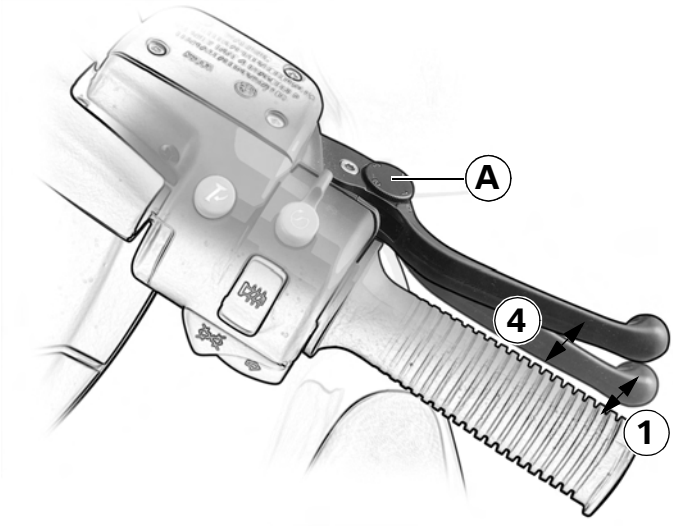
Clutch lever, adjusting

Attention:
Sudden changes in play or spongy action indicate a fault in the hydraulic system.
If you are doubtful about the reliability of the hydraulic clutch operating system consult a specialist workshop, preferably an authorised BMW motorcycle dealer.

Warning:
To prevent air from entering the hydraulic circuit of the clutch: do not turn the fitting on the handlebar.

- Turn knob **A** to set the most comfortable span:

– Setting **1**: minimum span
– Setting **3**: maximum span



Warning:
To prevent air from entering the brake circuit: do not turn the fitting on the handlebar.

Adjusting the handbrake lever

- Turn knob **A** to set the most comfortable span:

– Setting **1**: minimum span
– Setting **4**: maximum span

Work on the brake system

Warning:
To ensure reliability have all work on the brake systems carried out by a specialist workshop, preferably an authorised BMW motorcycle dealer.

Brake system, checking

Warning:
Sudden changes in play or spongy action of the brake lever indicate a fault in the brake system.
Before riding off, therefore, always check the resistance of the front and rear brake levers and test operation of the brakes.
Do not ride the motorcycle if you have any doubts about the safety of the brake system. Immediately seek the advice of a specialist workshop, preferably an authorised BMW motorcycle dealer.

Warning:
Have the brake pads replaced before they wear to the minimum permissible thickness: have the work performed by a specialist workshop, preferably an authorised BMW motorcycle dealer.

Checking brake pads

Brake pad wear depends on your personal style of riding.
In order to ensure the dependability of the brake system: do not permit the brake pads to wear past the minimum permissible thickness (➠ Maintenance Instructions, Chapter 2).

Checking brake fluid level

Warning:
On a motorcycle equipped with BMW Integral ABS, the brake fluid level in the reservoir (➠ 52) does NOT drop as the brake pads wear.

Warning:
Have the brake system checked immediately by a specialist workshop, preferably an authorised BMW motorcycle dealer, if the brake fluid level in the reservoir of the brake system (➠ 52) drops below the MIN mark.

Changing the brake fluid

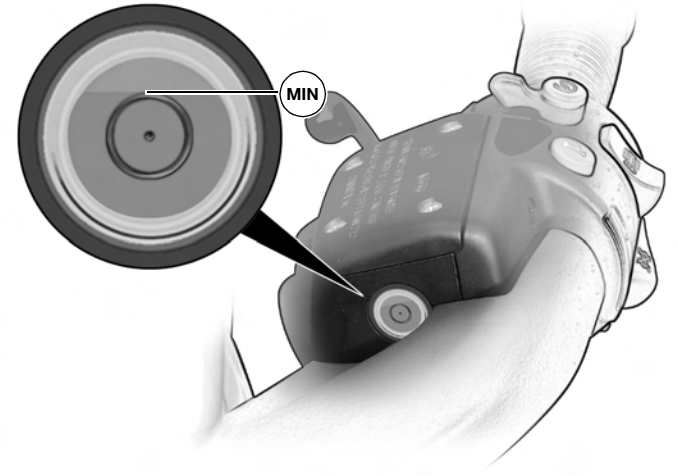
Warning:
Brake fluid is exposed to severe thermal loads, and absorbs moisture from the atmosphere. Consequently, the brake fluid must be changed regularly (➠ Maintenance Instructions, Chapter 1) by a specialist workshop, preferably an authorised BMW motorcycle dealer.

RESIDUAL BRAKING FUNCTION

Warning:
When the ignition is switched off, before and during self-diagnosis (➠ 90), or if the BMW Integral ABS fails, only a RESIDUAL BRAKING FUNCTION (➠ 87) remains available for slowing the motorcycle.
When the RESIDUAL BRAKING FUNCTION is active, you must apply CONSIDERABLY higher pressure to the brake levers in question in order to apply the brakes, and lever travel is longer.
When the RESIDUAL BRAKING FUNCTION is active, the ABS function is unavailable in the brake systems in question.

Warning:
When the RESIDUAL BRAKING FUNCTION is active, maintain a defensive riding style and proceed immediately to the nearest specialist workshop, preferably an authorised BMW motorcycle dealer.

Note:
When the RESIDUAL BRAKING FUNCTION for the front brake is active, it is advisable to set adjuster **A** (➠ 47) of the handbrake lever to position **4**.



Checking front brake fluid level

Warning:
Never permit the brake fluid level to drop below the minimum level (MIN mark).

- Place the motorcycle on its main (centre) stand
  - Make sure the ground is level and firm.
- Turn the steering fully to the left; the fluid reservoir must be horizontal
- Check brake fluid level in sight glass

  MIN Minimum level (top of marking ring)

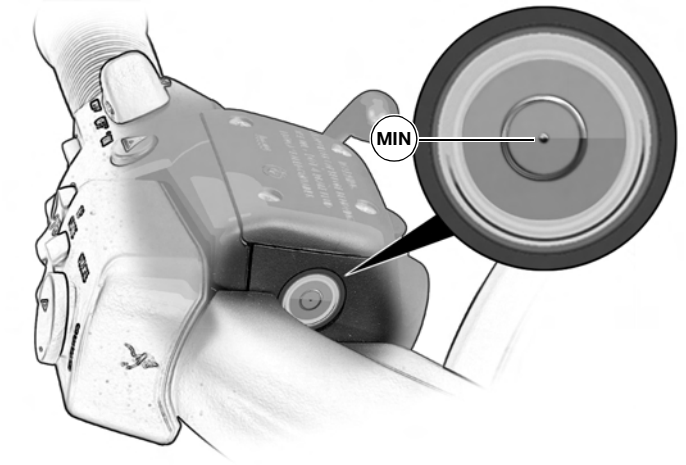
Note:
The brake fluid level in the brake fluid reservoir remains constant despite wear of the brake pads.

Checking rear brake fluid level

Warning:
Never permit the brake fluid level to drop below the MIN mark on the brake fluid reservoir

- Place the motorcycle on its main (centre) stand
  - Make sure the ground is level and firm
- Open the right case
- Check the brake fluid level through the window
  MIN minimum level

Note:
The brake fluid level in the brake fluid reservoir remains constant despite wear of the brake pads.



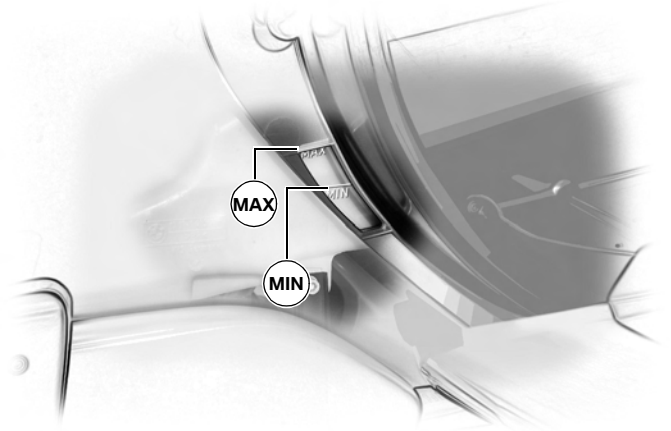
Checking the fluid level in the clutch fitting

Warning:
Never permit the fluid level to drop below the middle of the sight glass (MIN)

- Place the motorcycle on its main (centre) stand
  - Make sure the ground is level and firm.
- Turn the steering fully to the right;
  the fluid reservoir must be horizontal
- Read off fluid level on sight glass
  MIN Minimum level
  (centre of sight glass)

Note:
The fluid level in the reservoir rises as the clutch plate wears.

Attention:
If the fluid level drops, assume there is a defect in the clutch system.
Have the clutch system checked immediately by a specialist workshop, preferably an authorised BMW motorcycle dealer.



Checking coolant level

Attention:
Always keep the coolant level above the minimum mark. Check coolant level only when the engine is cold.

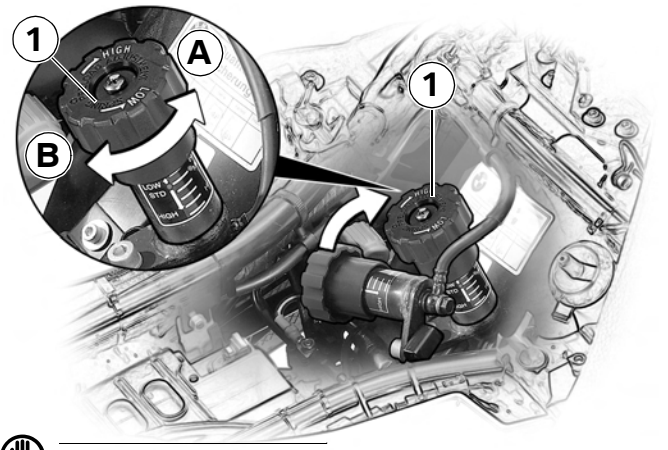
- Place the motorcycle on its main (centre) stand
  - Make sure the ground is level and firm.
- Open the left case (➠ 32)
- Check coolant level at the expansion tank, using torch if necessary:
  MAX Maximum level
  MIN Minimum level

Attention:
Never overfill the expansion tank underneath the front seat.

- Add coolant if necessary
- Close the left case (➠ 32)

Note:
If the expansion tank is full and coolant temperature is high (as indicated by red warning light ➠ 10) or coolant consumption is excessive, consult a specialist workshop, preferably an authorised BMW motorcycle dealer.

Spring preload



Warning:

Before the journey starts, adjust spring preload to suit the gross weight/load on the motorcycle.

Adjusting spring preload

- Opening the seat (➠ 34)
- Unfold knob **1**
- Steplessly adjust spring preload by turning knob **1** to suit the load on the motorcycle

One-up without luggage
(approx. 85 kg (187 lbs) rider, fully suited)

- Turn knob **1** as far as it will go in the “LOW” direction as indicated by arrow **A**

With luggage
(approx. 120 kg (264 lbs))

- Centre knob **1** by turning it in the direction indicated by arrow **B**

Two-up with luggage
(150 kg (330 lbs) or more)

- Turn knob **1** as far as it will go in the “HIGH” direction as indicated by arrow **A**

Attention:
Fold in knob **1** before closing front seat.

- Lock the front seat (➠ 35)

Warning:
Use only wheels and tyres that BMW Motorrad has approved for your motorcycle. For each size of tyre BMW tests certain makes, and approves those that it certifies as roadworthy.
If BMW Motorrad has not approved the wheels and tyres it cannot assess their suitability or provide any guarantee of road safety.
You can obtain detailed information on approved tyre sizes and makes from your authorised BMW motorcycle dealer or by visiting www.bmw-motorrad.com on the Internet

Checking wheel rims

Warning:
Have damaged wheel rims checked and, if necessary, replaced by a specialist workshop, preferably an authorised BMW motorcycle dealer.

Checking tyre tread

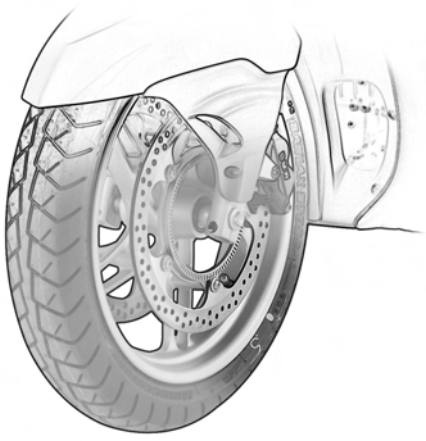
Warning:
Comply with local legal requirements concerning minimum tread depth.
Worn tyres can impair handling.

- Measure tread depth at the centre of the tyre tread

BMW's minimum tread depth recommendation:
Front ..... 2 mm (0.08 in)
Rear..... 3 mm (0.12 in)

Checking tyre pressures

Warning:
Incorrect tyre pressures have a considerable influence on handling and on tyre life.
Tyre pressures must be chosen to suit the total weight on the motorcycle. Do not exceed the gross weight limit or the tyres' specified load capacity (➠ 61).



– If tires are cold:

- Remove valve caps
- Check/correct tire pressures

Tire pressures:

	Front	Rear
One-up	2.5 bar (36.3 psi)	2.9 bar (42.1 psi)
Two-up	2.5 bar (36.3 psi)	2.9 bar (42.1 psi)
Two-up with luggage	(2.5 bar (36.3 psi)	3.2 bar (46.4 psi)

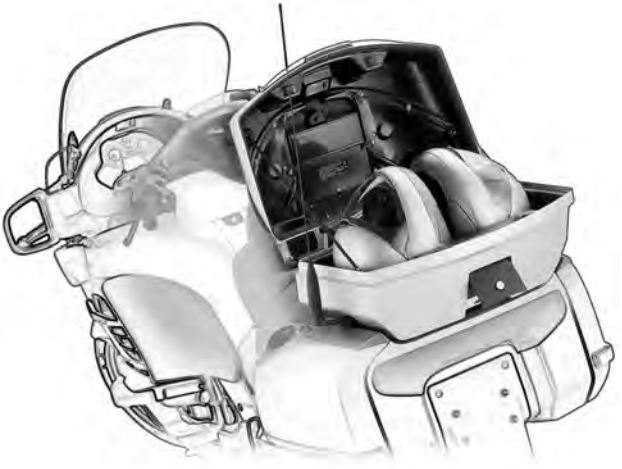
- Screw the valve caps back on tightly

Screwing on valve caps

Warning:
At high road speeds, tyre valves have a tendency to open as a result of centrifugal force.
Use only metal valve caps with rubber seals.
Valve caps that are screwed on well prevent air from escaping suddenly.

Warning:
BMW cannot examine or test each product of outside origin on the accessories and tyres market to ensure that it can be used on or in connection with BMW motorcycles without constituting a safety hazard. Even approval by an official inspection authority or an official permit (General Operating Permit) cannot always provide this guarantee. Tests conducted by these instances cannot make provision for all operating conditions experienced by BMW motorcycles and consequently, they are not sufficient in some circumstances.

Note:
BMW accessories and other products approved by BMW can be obtained from your authorised BMW motorcycle dealer.

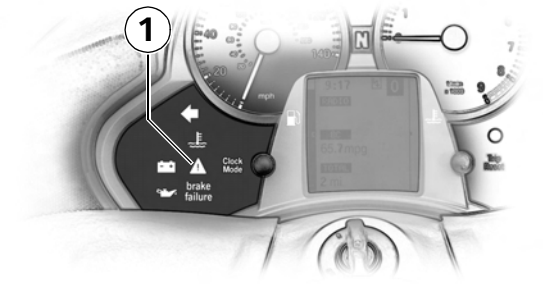


Correct loading

Warning:
Overloading can impair the stability of your motorcycle, as can an incorrectly distributed load.

- Make sure that the weight is uniformly distributed between right and left
- Pack heavy items at the bottom and toward the inboard side
- Max. load in topcase: 10 kg (22 lbs)
- Max. load in each case (left and right): 10 kg (22 lbs)

Attention:
Do not exceed the gross weight limit of 600 kg (1,300 lbs). Do not exceed the wheel load limits of 204 kg (449 lbs) at the front and 402 kg (886 lbs) at the rear.
Adjust the rear-suspension spring and shock absorber settings and the tyre pressures to suit gross weight (➠ 56-59).
Gross weight consists of:
– motorcycle with full tank
– rider
– passenger
– luggage



Checking lights

Attention:
Check that all lights are operational at the start of each journey.

Note:
If turn indicator repeater flashes at twice the usual speed:
A turn indicator bulb is defective.
For instructions on changing bulbs in parking light, headlight (low beam and high beam), rear light, brake light and turn indicators:
(➠ Maintenance Instructions, Chapter 2).

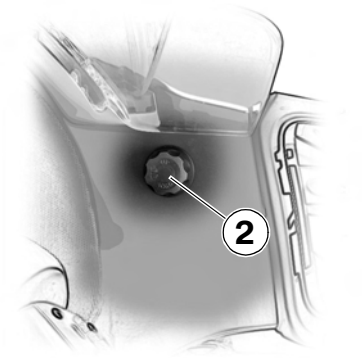
Rear light

General warning light **1** (➠ 78) ON: Brake light or rear light defective. If the rear light is defective the brake light is dimmed and acts as a rear light. When you apply the brakes the brake light shines at full brightness.

Adjusting beam throw

Attention:
Do not attempt to adjust headlight beam throw to suit load unless the motorcycle is at a standstill

Have the headlight basic setting adjusted by a specialist workshop, preferably an authorised BMW motorcycle dealer.



Basic setting :

- Turn knob **2** counter-clockwise as far as it will go

Adjusting to suit load:

- Change the spring strut setting to suit load (➠ 56)

Note:

When spring preload is adjusted (➠ 56), beam throw is automatically adjusted to suit the load on the motorcycle.

- Precision-adjust by turning knob **2**

Adjusting headlight for RHD/LHD traffic

If the motorcycle is ridden in a country where the opposite rule of the road applies, its asymmetric low headlight beam will tend to dazzle oncoming traffic.
Consult a specialist workshop, preferably an authorised BMW motorcycle dealer, to have the headlight adjusted to suit whichever rule of the road applies.

Attention:

Adhesive films with unsuitable adhesives can damage the headlight lens.

Handling your motorcycle safely

Each motorcycle has a character all its own. It is time now for you to familiarise yourself with the way your own motorcycle behaves:
– acceleration
– roadholding
– cornering
– braking …
These are all things you need to become familiar with.
Please remember too that if the motorcycle has not yet covered 1,000 kilometres (600 miles), the engine is not yet fully run in.

Attention:
BMW Integral ABS incorporates a brake booster, so braking efficiency is significantly higher than with conventional brake systems.

Warning:
The tyres need to cover a certain distance before they acquire their full road grip (➠ 74).

If you ride at high speed, always bear in mind that various boundary conditions such as the spring preload setting and the shock-absorber setting, an unbalanced luggage load, loose clothing, low tyre pressure, poor tyre tread, and so on, can affect the handling of your motorcycle.

Safe motorcycling does not depend on the motorcycle and equipment alone.
Your own skill and common-sense are needed too.
The key to genuine safety on the road is a sensible balance between the motorcycle's technical features and the rider's skill, so that together they form a single efficient unit.
Riding safely in traffic calls for a sense of responsibility to your passenger and to other road users.

Warning:
Do not ride the motorcycle after drinking alcoholic beverages. Even small amounts of alcohol or drugs, particularly if taken in conjunction with medicines, will adversely affect your perception and your ability to assess situations and make decisions, and also slow down your reflexes.

Take to the road now by all means, but think carefully about everything you do.

Risk of fatal accident

Your motorcycle is equipped with a digital electronic engine management system and a high-power ignition system.

Warning:
When the engine is running or the ignition switched on, never touch electrically live parts of the ignition system or the digital engine electronics.

BMW Integral ABS

Warning:
When the ignition is switched off or if the BMW Integral ABS fails, only a RESIDUAL BRAKING FUNCTION remains available for slowing the motorcycle (➠ 87).
Under these circumstances you must apply CONSIDERABLY higher pressure to the brake levers in order to apply the brakes, and lever travel is longer

Risk of poisoning

Exhaust fumes contain carbon monoxide, which is colourless and odourless but highly toxic.

Warning:
Inhaling the exhaust fumes therefore represents a health hazard and can even cause loss of consciousness with fatal consequences.
Do not run the engine in an enclosed space.

Catalytic converter

Attention:
To avoid damage to the catalytic converter:
- Do not run the fuel tank dry
- Do not push start your motorcycle. Use jump leads instead
- Do not run the engine with a spark plug lead disconnected
- Do not exceed the engine-speed limits marked on the revolution counter
- Comply with all specified maintenance intervals
- Stop the engine at once if it is misfiring
- In the event of misfiring or a severe drop in engine power, consult a specialist workshop, preferably an authorised BMW motorcycle dealer

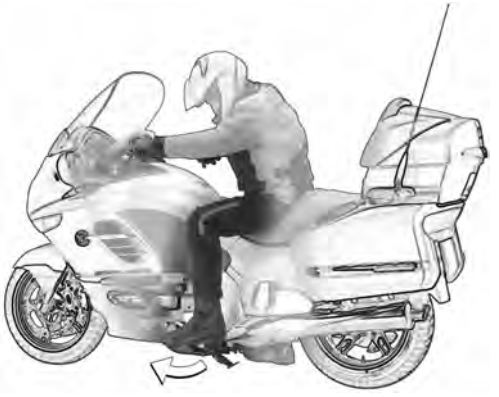
If misfiring or malfunction of the fuel-air mixture preparation system causes unburned fuel to reach the catalytic converter, there is a risk of it overheating and being damaged.

Risk of fire

High temperatures occur at the exhaust system, particularly if a catalytic converter is installed.

Warning:
Make sure that whether riding or standing still or when the motorcycle is parked, no easily flammable material (for example hay, grass, leaves, clothing or luggage etc.) can come into contact with the hot exhaust system.
Do not allow the engine to idle unnecessarily or for prolonged periods of time – risk of overheating or fire. Ride away immediately after starting the engine.

Side stand

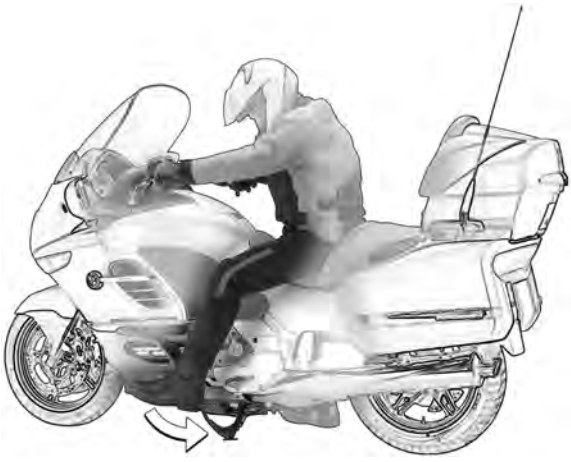


Placing motorcycle on side stand

Warning:
For safety reasons, never sit on the motorcycle with the side stand extended.

Attention:
Stop the engine before using the side stand.
Make sure the surface under the stand is firm.
On a gradient, the motorcycle should always face uphill; select 1st gear.

- Switch off the ignition
- Keep both feet on the ground
- Hold the left handlebar grip with your left hand
- Keep your right hand on the right handlebar grip and the handbrake lever
- Hold the motorcycle upright and balanced
- Use your left foot at the extension pin to extend the side stand fully (arrow)
- Slowly lean the motorcycle to the side until its weight is taken by the stand and dismount from the motorcycle
- Turn the handlebars to full left lock (➠ 13)
- **Check that the motorcycle is firmly supported**



Removing motorcycle from side stand

Warning:
If the motorcycle is fitted with BMW Integral ABS, only the RESIDUAL BRAKING FUNCTION is available when the ignition is switched off (➠ 87).
Make sure the side stand is fully retracted before you ride off.
– Allowing the motorcycle to roll with the side stand extended represents a safety risk.

- Turn the ignition key to the **"R"** or **"ON"** position (➠ 13)
  – handlebars unlocked
- Both feet on the ground, no weight on the motorcycle
- Hold the left handlebar grip with your left hand
- Keep your right hand on the right handlebar grip and the handbrake lever
- Slowly raise the motorcycle to the upright position and keep it balanced
- Sit on the motorcycle and use your left foot to retract the side stand

Electro-hydraulic centre-stand system EHCS

Note:

Your motorcycle has an electro-hydraulic centre stand, **EHCS** for short, that makes it easy to park the motorcycle on its main stand.

Indicators and telltale lights of the EHCS

Telltale light	Indicator in the multifunction display	Meaning
Flashes at 2 Hz		**EHCS active** (➠ 90)
ON		**EHCS at limit position** (➠ 90)
Flashes at 4 Hz	Lightning flash	**EHCS system failure** – On-board system voltage is below 10 V – Control unit or its periphery defective
Flashes at 4 Hz	Hourglass	**EHCS system overload** – After it has been in operation for 10 seconds, the EHCS is disabled for 10 seconds. – If the EHCS is used more than three times in succession for 10 seconds, it is disabled for 3 minutes (you can cancel this disabled period by switching the ignition on and then off again).
Flashes at 4 Hz	Call symbol	**Operator error** – Side stand extended – Gear engaged – Handbrake/footbrake applied – Motorcycle not at a standstill

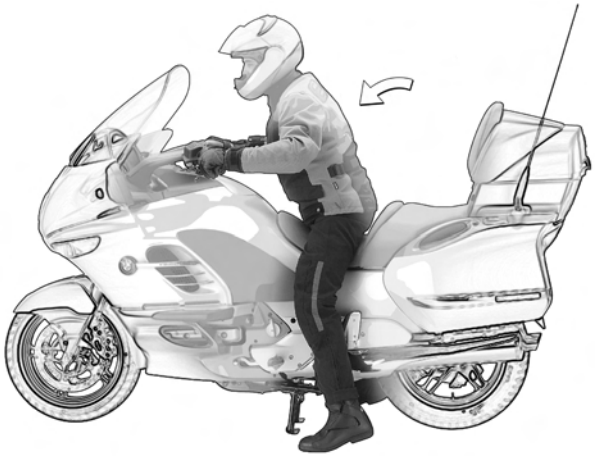
Placing motorcycle on main (centre) stand

Attention:
Always make sure the surface under the stand is level and firm.

- Switch on the ignition and allow the engine to idle if necessary
- Bring the motorcycle to a complete standstill
- Select neutral N
- Do not apply the handbrake or footbrake
- Hold the left handlebar grip with your left hand
- Hold the right handlebar grip with your right hand
- Sit upright on the motorcycle, with both feet on the ground to support your weight
- Press and hold down the button to extend the centre stand
  – The **EHCS** telltale light flashes at 2 Hz
- When the stand reaches its limit position
  – The **EHCS** telltale light remains permanently ON

  Release the button
- **Check that the motorcycle is firmly supported**
- Switch off the ignition and dismount

Main (centre) stand



Removing motorcycle from main stand

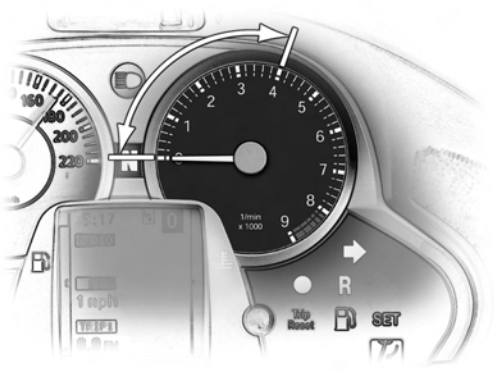
Warning:

For safety reasons, never sit on the motorcycle with the main stand extended.
If the motorcycle is fitted with BMW Integral ABS, only the RESIDUAL BRAKING FUNCTION is available when the ignition is switched off (➠ 87).

Attention:

Make sure the main stand is fully retracted before you ride off.

- Select neutral N
- Turn the ignition key to the **"R"** or **"ON"** position (➠ 13)
  – handlebars unlocked
- Both feet on the ground, no weight on the motorcycle
- Hold the left handlebar grip with your left hand
- Hold the right handlebar grip with your right hand
- With both feet on the ground, push the motorcycle forward off the centre stand
- Keep the motorcycle balanced and sit on the seat
- **Check that the main stand has fully retracted**



Attention:
Exceeding the specified engine speeds while running in will contribute to premature engine wear.

Note:
While running in the motorcycle, vary the throttle opening and engine-speed range frequently. Try to do most of your riding during this initial period on twisting, fairly hilly roads rather than high-speed main roads and highways.

Running-in engine speeds

From 0 to 1,000 km (600 miles)

- Engine speed max. 4,000 rpm and no full-load acceleration
- Do not omit the first inspection after 1,000 km (600 miles). Make an appointment with your authorised BMW motorcycle dealer in good time, so that the work can be performed punctually.

From 1,000 to 2,000 km (600 to 1,200 miles)

- Engine speeds can be gradually increased after 1,000 km (600 miles)
- Avoid lengthy periods at full load until 2,000 km (1,200 miles) have been covered

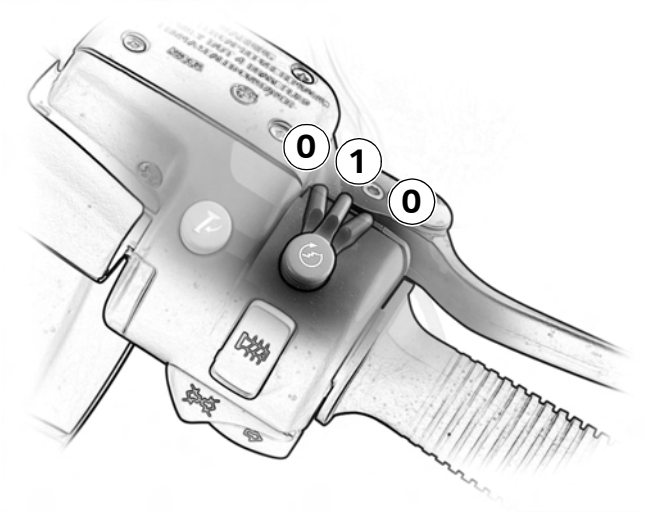
Running in new tyres

Warning:
New tyres have a smooth surface. This must be roughened by riding in a restrained manner at various heel angles until the tyres are run in.
This running in procedure is essential if the tyres are to reach their maximum level of grip.

Running in new brake pads

Warning:
New brake pads must "bed down" and therefore do not achieve their optimum friction levels during the first 500 km (300 miles).
This slight initial reduction in braking efficiency can be compensated for by exerting greater pressure on the lever. Try to avoid all unnecessary hard braking during this initial period.

Attention:
Comply with the notes on BMW Integral ABS (➠ 84-93).



Switching on the ignition

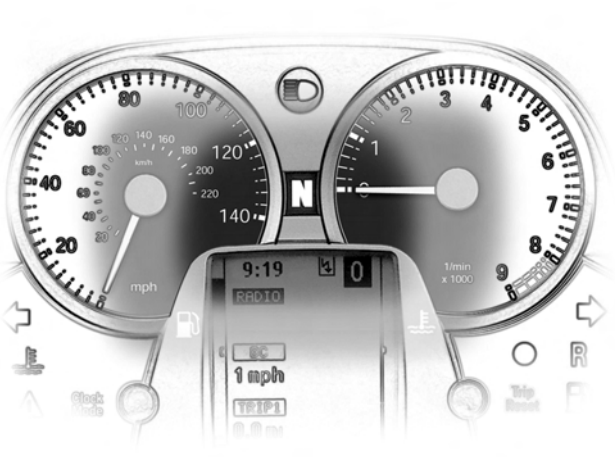
– Move the kill switch to the run position **1**
• Ignition switch **ON**

In an emergency only:

• Move the kill switch to the **0** position.
– The electronic engine management, fuel pump and starter motor electrical circuits are de-energised

Note:

If you move the kill switch to the **0** position while the ignition is on (switch in **ON** position), the BMW Integral ABS remains operational (➠ 84-93).



Fully retract the side stand

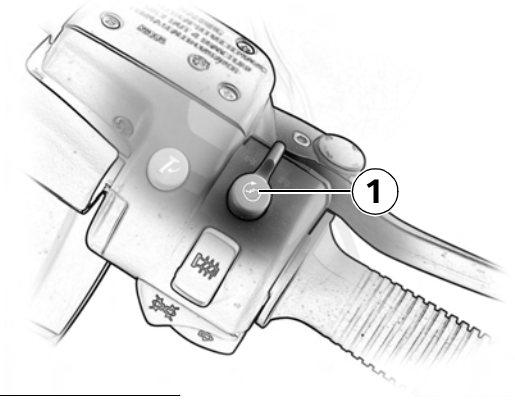
Note:
If the side stand is extended and a gear engaged, you cannot start the motorcycle.

Select neutral

– Neutral indicator light **green** N is on (➠ 10)
– Gear indicator shows “0”

Note:
Engine does not start:
– Move the gear lever to the N position or disengage the clutch

Engine stops when first gear is engaged:
– Fully retract the side stand; if necessary, consult the trouble-shooting chart (➠ Maintenance Instructions, Chapter 2)



Starting

Warning:
Do not allow the engine to idle unnecessarily or for prolonged periods of time
– risk of overheating or fire. Ride away immediately after starting the engine.
Avoid high engine speeds after a cold start.

Attention:
If you attempt to start the engine when the battery is flat, you will hear the relay chattering. Further attempts will damage the starter relay and starter motor. Before repeating the attempt to start the engine: recharge the battery (➠ Maintenance Instructions, Chapter 2).

Note:
Do not turn the throttle twistgrip when starting the engine.

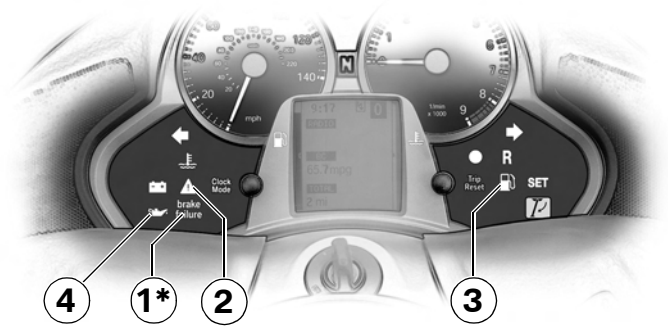
- Press starter pushbutton **1**

– The engine starts

- Gently turn the throttle twistgrip

Note:
At ambient temperatures below 0 °C (32 °F), pull the lever to disengage the clutch when starting the engine.

Warning lights



ABS warning light

The ABS warning light **1** lights up if the BMW Integral ABS develops a fault (➠ 93).

Warning light, general

General warning light **2** lights up if the BMW Integral ABS develops a fault (➠ 93), or if the tail light or brake light is defective.

Low fuel level

When warning light **3** comes on, there are still approx. 4 litres (0.9 Imp.gal.) of fuel in the tank.

* depending on national-market specification

Engine oil pressure

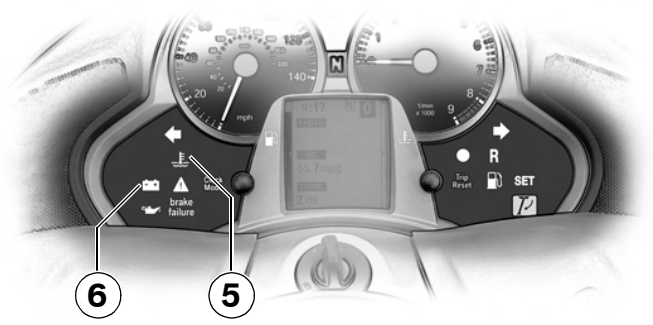
Warning light **4** goes out above idle speed.

Attention:

If warning light **4** comes on during the journey, take the following action as soon as traffic conditions permit:

- Disengage the clutch
- Operate the kill switch
- Bring the motorcycle safely to a halt
- Check engine oil level (➠ 43)

Top up with fresh oil if the oil level is low. If the warning light for engine oil pressure lights up even though the oil level is correct, it is absolutely essential to consult a specialist workshop, preferably an authorised BMW motorcycle dealer.

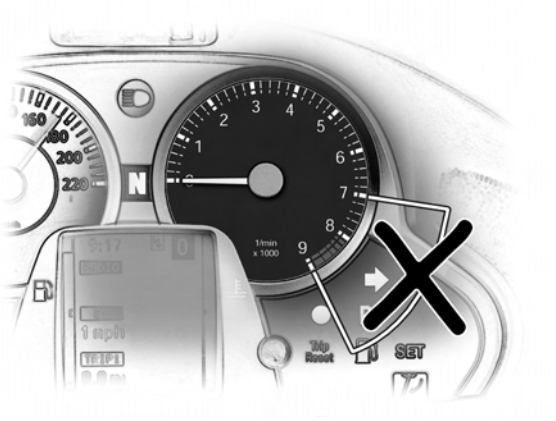


Coolant temperature
Warning light **5 (red)**
goes out when the engine is started, above idle speed.

Attention:
If the coolant temperature warning light **5** comes on, stop the engine and allow it to cool down.
Check coolant level in the expansion tank (➠ 55).
If the expansion tank is full, but the warning light remains on, or if coolant consumption is excessive, consult a specialist workshop, preferably an authorised BMW motorcycle dealer.

Battery charge current
Warning light **6** goes out above idle speed.

Attention:
If warning light **6** comes on while the motorcycle is being ridden: consult a specialist workshop, preferably an authorised BMW motorcycle dealer.



Engine speed

Choose engine speeds in accordance with the coolant temperature reading, and do not use maximum engine speeds until the engine has reached its regular operating temperature.

When the revolution counter needle enters the red zone on the dial, the fuel supply is interrupted in order to protect the engine against overspeeding, as you will notice because the engine "stutters".

Warning:

Never run the engine with the needle of the revolution counter in the red zone.

Load changes

Warning:

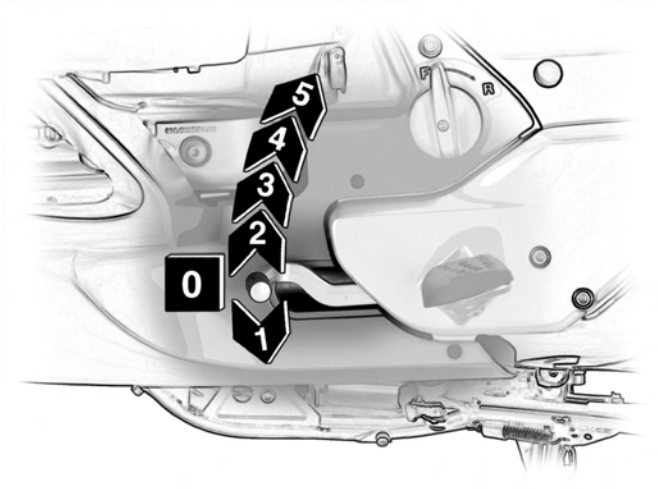
Try not to open or close the throttle abruptly, particularly on wet or slippery roads.

Gear shifts

Note:

Never slip the clutch excessively when changing gear. Vary your speed only by using the throttle in a suitable gear, not by slipping the clutch.

The digital cockpit display shows which gear has been selected (➠ 10).



Moving away/upshifts:

- Pull the clutch lever in
- Press down on the gearshift lever (to select first gear) and take your foot off the lever
- Smoothly reengage the clutch
- Increase engine speed slightly as necessary
- Accelerate when the clutch is fully engaged
- For upshifts into 2nd, 3rd, 4th and 5th gears, proceed in the same way, but lift the gear lever with your foot

Downshifts:

- Close the throttle twistgrip
- Pull the clutch lever
- Select the next-lowest gear: Press the gearshift lever in the direction opposite to that indicated by the arrow
- Smoothly reengage the clutch

Wet brakes

After the motorcycle has been washed, ridden through water or ridden in the rain, the brake discs and pads may be wet (or iced-over in winter), and may not take effect immediately.

Warning:
The brakes have to dry before they start to bite.

Salt on brakes

The brakes may fail to take effect immediately if the motorcycle was ridden on salt-covered roads and the brakes were not applied for some time.

Warning:
The layer of salt on the brake discs and pads has to be worn off before the brakes start to bite.

Oil and grease on brakes

Warning:
Brake discs and pads must be free from oil or grease.

Dirt or mud on brakes

When you ride on loose surfaces or muddy roads, the brakes may fail to take effect immediately because of dirt or moisture on the discs or brake pads.

Warning:
The brakes must first be applied until the discs and pads are clean.
Dirt on the brakes increases the rate of pad wear.

Warning:
If the brake lever can be moved right to the limit of its travel, this indicates a mechanical or hydraulic fault. The brake system is defective.
Immediately consult a specialist workshop, preferably an authorised BMW motorcycle dealer.

How does ABS work?

The maximum braking force it is possible to transfer to the carriageway depends, among other things, on the road surface's coefficient of friction. Gravel, ice and snow, and water on the road, have significantly poorer coefficients of friction than a dry, clean asphalt road surface. The poorer the road's coefficient of friction, the longer the braking distance. If the maximum braking force it is possible to apply to the road is exceeded when the rider increases brake pressure, the wheels will begin to lock and directional stability is lost; a fall threatens. Before this situation can arise, ABS intervenes and adapts the braking pressure to the maximum braking force it is possible to transfer so that the wheels continue to turn and driving stability is maintained whatever the prevailing road conditions.

What happens with bumps in the road?

Corrugated road surfaces or bumps in the road can cause the tyres to temporarily lose contact with the road surface and hence the braking force it is possible to apply to drop to zero. If the brakes are applied in this situation, the ABS must reduce the braking pressure to ensure driving stability when contact with the road surface is restored. At this moment, BMW Motorrad Integral ABS must assume extremely low coefficients of friction (gravel, ice, snow) so that the wheels turn in any conceivable situation and thus the stability of the motorcycle is ensured. Once the actual circumstances are detected, the system will set the brake pressure to the optimum value.

What do we observe during rider safety training?

Braking in which ABS has to intervene has, by comparison with normal braking, a significantly higher demand for electricity which puts a heavy load on the battery. The battery is constantly being charged in normal riding so that it always has sufficient capacity available. If the motorcycle is not to be ridden for several weeks, a trickle charger, which can be obtained from your BMW Motorrad dealer, should be connected or the battery disconnected and then recharged before starting riding again.

During rider safety training, an unusual number of ABS-controlled braking operations take place in rapid succession interspersed with periods of waiting and assessment in which the motorcycle is not being ridden. The battery is put under heavy load by the ABS control actions, but at the same time it is not being recharged as practically no riding is being done.

In isolated cases, in this artificially created situation, braking operations in which the brake lever is operated with maximum force and extreme speed, in combination with declining on-board supply voltage, can bring the ABS up to its technical limits in which its control function is no longer fulfilled. Field observations carried out by BMW Motorrad indicate that a comparable situation has not arisen in traffic or even during training rides.

The following notes must be observed during safety training:

- check the warning and indicator lamps before any braking exercise
- ride the motorcycle over sufficient distance to charge the battery after a maximum of five braking exercises
- switch off consumers such as seat and grip heating, radio, navigation system and accessories connected to the power sockets
- in pauses and discussions, switch off the ignition; if the engine is switched off with the emergency off switch, the lights and all electronic systems remain switched on and drain the battery

How can I achieve the shortest braking distance?

Dynamic load distribution between the front and rear wheels changes under braking. The heavier the brakes are applied, the more load is transferred to the front brake. The greater the load on the wheel, the more braking force can be transferred.
To achieve the shortest braking distance, it is necessary to apply the front brake gradually and with increasing force. This makes best use of the dynamic increase in load on the front wheel. At the same time, the clutch should be disengaged.

In emergency braking as it is often taught, in which the brake pressure is generated as quickly as possible and with all possible force, the dynamic load distribution cannot follow the increasing deceleration and the braking force cannot be completely transferred to the road. The ABS has to intervene to ensure that the front wheel does not lock up; this reduces the brake pressure and the braking distance is extended.

What happens if ABS control fails?

A fault in BMW Motorrad Integral ABS is indicated by a corresponding warning display in the instrument cluster.

If only ABS control fails, the Integral system and the brake servo action remain operational. If these systems also fail, the residual brake function is applied. In this case, the forces to be applied to the brake levers will be significantly higher and the lever travel required will be longer.

The residual brake function is a mechanical function and is always available in the event of the failure of the BMW Motorrad Integral ABS, whatever the battery condition.

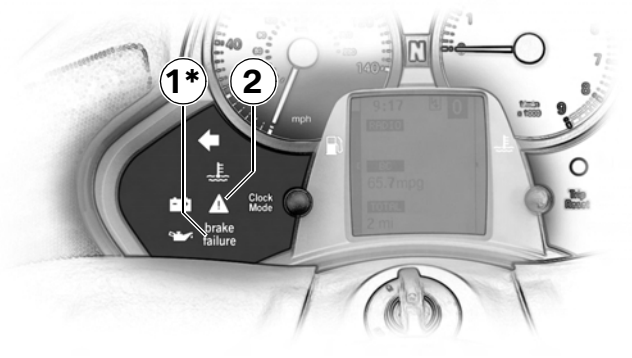
It meets all requirements of legislation around the world on the design of brakes for motor vehicles and allows the rider to brake the motorcycle.
The following notes must be observed for riding with the residual braking function:

- set the brake lever to maximum travel
- always brake with both front and rear brakes
- where it is safe to do so, try out the brakes so that you can learn the brakes' response characteristics
- be aware of the prevailing road conditions and adapt your braking force accordingly
- since this is an emergency-run function, you should visit a specialist workshop, or better still a BMW Motorrad dealer, as quickly as possible.

What is the role of regular maintenance?

Attention:
Any technical system is only ever as good as its maintenance.
The service intervals specified must be kept to without fail to ensure that the BMW Motorrad Integral ABS is in an optimum maintenance condition.

What is the design specification for BMW Motorrad Integral ABS?
BMW Motorrad Integral ABS ensures stability of the motorcycle on any surface within the bounds of physics.
The system is not designed for special requirements such as those that arise under extreme conditions of competition off-road or on the racetrack.



Self-diagnosis with pull-away test

The BMW Integral ABS performs self-diagnosis and a pull-away test to ensure its operability. Self-diagnosis is performed automatically when you switch on the ignition.

Warning:

Self-diagnosis is not performed unless both brake levers are in their fully released positions. Only the RESIDUAL BRAKING FUNCTION is available until self-diagnosis is completed (➠ 87).

- Release the brake levers, if necessary
- Switch on the ignition

Initially:

– ABS warning light **1**: Flashes at 4 Hz

– General warning light **2**: ON

➠ Self-diagnosis is in progress

Then:

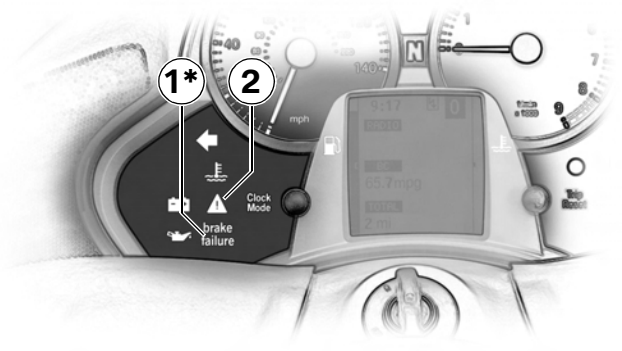
– ABS warning light **1**: Flashes at 1 Hz

– General warning light **2**: OFF

➠ Self-diagnosis successfully completed

* depending on national-market specification

Brake system - with BMW Integral ABS



- Start the engine.
- Move off

– ABS warning light **1**:
OFF (as of approx. 5 km/h (3 mph) road speed)

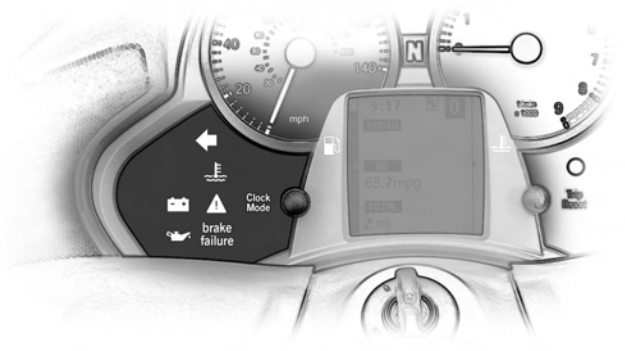
➠ Pull-away test successfully completed

➠ BMW Integral ABS is available

Note:
Flashing at 1 Hz = 1 flash per second (slow flashing)
Flashing at 4 Hz = 4 flashes per second (fast flashing)

Note:
Starting on gradients:
Always switch on the ignition with gear engaged, clutch lever released and both brake levers released.
Self-diagnosis cannot be performed if you do not follow this procedure.
When self-diagnosis completes, apply the brakes, disengage the clutch, and start the engine.

* depending on national-market specification



Warning:
If the BMW Integral ABS fails in both brake circuits, a RESIDUAL BRAKING FUNCTION only is available (➠ 87).

Warning:
If the RESIDUAL BRAKING FUNCTION (➠ 87) is active, maintain a defensive riding style and proceed immediately to a specialist workshop, preferably an authorised BMW motorcycle dealer.

Warning:
If there is a fault in the ABS system, the reserves of safety normally afforded by ABS are not available until the defect has been put right.
There is a risk of dropping the motorcycle if the brakes are applied too hard and the wheels lock or the rear wheel lifts clear of the ground as a result of a high level of tyre adhesion. Have the defect rectified immediately by a specialist workshop, preferably an authorised BMW motorcycle dealer.

BMW Integral ABS - troubleshooting

Warning light, general ⚠	ABS warning light ABS	Malfunctions
OFF	ON	Only RESIDUAL BRAKING FUNCTION available in both circuits (➠ 87)
OFF	Flashes at 1 Hz	ABS not available Pull-away test not completed (➠ 90)
OFF	Flashes at 4 Hz	Only RESIDUAL BRAKING FUNCTION available in both circuits (➠ 87) Self-diagnosis not completed (➠ 90)
ON	OFF	Rear/brake light defective (➠ Maintenance Instructions, Chapter 2) cruise-control system not available
ON	Flashes at 1 Hz	At least one brake circuit without ABS (➠ 92)
ON	Flashes at 4 Hz	At least one brake circuit in RESIDUAL BRAKING FUNCTION mode (➠ 87)
Alternate flashing at 1 Hz	Alternate flashing at 1 Hz	Fluid level in BMW Integral ABS too low. Check the motorcycle as follows: – Ignition OFF: is brake pressure OK at the brake levers? – Are the brakes acting on both wheels? – Is the brake system leaktight, no signs of brake fluid escaping? The brake system is defective if the test outcome is negative.
Alternate flashing at 4 Hz	Alternate flashing at 4 Hz	Fluid level in the BMW Integral ABS is too low, perform the checks listed above. Only RESIDUAL BRAKING FUNCTION available in at least one circuit (➠ 87) **Warning:** **Do not ride the motorcycle if you have any doubts about the dependability of the brake system.**

BMW Motorrad service

Advanced technology requires specially adapted methods of maintenance and repair.

Attention:
If maintenance and repair work is performed inexpertly, it could result in consequential damage and thus constitute a safety risk. BMW Motorrad recommends you to have all the associated work on your motorcycle carried out by a specialist workshop, perferably an authorised BMW Motorrad dealer.

Your authorised BMWMotorrad dealer can provide information on the specified Service, Inspection and Annual Inspection work neeed. Have all maintenance and repair work carried out confirmed in the "BMW Service" chapter of the Maintenance Instrucations manual. Authorised BMW Motorrad dealers are supplied with the latest technical information and have the necessary technical know-how. BMW Motorrad recommends that you contact your authorised BMW Motorrad dealer if you have questions regarding your motorcycle.

BMW Motorrad service quality

Along with its reputation for engineering quality and high reliability, BMW Motorrad is a byword for excellent quality of service. To ensure that your BMW is always in optimum condition, BMW Motorrad recommends that you have the maintenance work required for your motorcycle carried out regularly, preferably by your authorised BMW Motorrad dealer.

For generous treatment fo claims submitted after the warranty period has expired, evidence of regular maintenance is essential.

Certain signs of wear, more-over, may otherwise not be noticed until it is too late to put them right at moderate cost. Your authorised BMW Motorrad dealer's mechanics know every detail of your motorcycle and can take remedial action if necessary before minor faults develop into serious problems. By having the necessary repairs done properly and in good time, you save time and money in the long run.

BMW Motorrad Service Card: on-the-spot breakdown assistance

In the event of a breakdown, the BMW Motorrad Service Card issued with each new BMW motorcycle enables you to access an extensive range of services such as break down assistance, motorcycle transportation etc. (details can differ from country to country). In the event of a breakdown, contact BMW Motorrad's Mobile Service. The specialists will provide the necessary advice and as-sistance. You will find important country-specific contact addresses and the after-sales service organisation phone numbers in the "Service Kontakt/ Service Contact" brochures, along with information on Mobile Service and the dealership network.

BWM Motorrad service network

BMW Motorrad has an extensive after-sales service network in place to look after you and your motorcyle.BMW Motorrad has an extensive after-sales service network in place to look after you and your motorcycle in more than 100 countries. In Germany alone, you have the best possible access to approximately 200 authorised BMW Motorrad dealers. All information concerning the international dealership network can be found in the brochures entitled "Service Contact Europe" and "Service Contact Africa, America, Asia, Australia, Oceania".

Now it's your turn

- Regular care is important, with all functions checked before the journey starts.
- Use only genuine BMW accessories. These satisfy all safety requirements and are precisely matched to your BMW motorcycle.
- Have your motorcycle serviced only by the trained, expert personnel at your local authorised BMW motorcycle dealer.
- Do not under any circumstances install unapproved accessories. This can represent a safety hazard, invalidate the motorcycle's general operating permit or cause you to lose your insurance cover.
- Technical modifications should always be entrusted to your authorised BMW motorcycle dealer.

Note:

Your local authorised BMW motorcycle dealer can supply you with useful items to add to your motorcycle's toolkit and accompany the maintenance instructions.

– BMW Repair Manual
– BMW set of circuit diagrams

It's good to know you've thought of everything, isn't it?

Our aim is to make your journey safer

We want you to reach all your destinations safely – and we want you to enjoy riding your BMW as a constant source of relaxed pleasure and satisfaction.

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